Supplemental Basis Statement
Chapter 200 Metallic Mineral Exploration, Advanced Exploration and Mining
Second Comment Period
1/10/2014

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COMMENTS

COMMENTS ON SPECIFIC SECTIONS OF THE PROPOSAL
SUBCHAPTER 1: GENERAL PROVISIONS
1. Applicability
Subchapter 1: General Provisions, Part B. Prohibition.

1. *Comment:* "Mining in or under the waters of the state" has been eliminated from the original mining law. Also, "mining in or under coastal wetlands" has been eliminated. This part of the revision of the law allows for water pollution at the mining site. (69)

   Response: The Department recognizes that some mining activities would have an unreasonable impact on protected natural resources, including surface waters and coastal wetlands. However, the original prohibition against mining in or under waters of the State would have had the unintended consequence of prohibiting virtually all mining activities, since the bulk of most metal deposits occur below the water table.

   At the same time, it should be recognized that there is a wide range of activities associated with mining operations (e.g., stream crossings) that would not have an

unreasonable impact on these resources, and could be permitted under the Natural Resources Protection Act and other applicable requirements. The Department has amended its proposal to prohibit the removal of ore from great ponds, rivers, brooks and stream, and coastal wetlands. The amended proposal would allow stream crossings and other alterations of these resources pursuant to the Natural Resources Protection Act and other applicable requirements. The amended proposal would also allow mining underneath these resources, and in freshwater wetlands (again with Department approval). No changes were made as a result of this comment.

2. *Comment:* I am appalled at the changes made specifically to Attachment 1: Section 1 paragraph B allowing mining in groundwater, under waters of the state and in freshwater wetlands. This cannot be allowed under any circumstance. (117)

   Response: See Response to Comment #1.

3. *Comment:* I am a Maine citizen, and Nurse Practitioner, very concerned about toxic exposure to our state's people, and degradation of our environment, the richest resource Maine has in my opinion. Of specific concern is the change in regulatory statute being proposed as Subchapter 1:General Provisions, Part B. Prohibition , specifically taking out the phrase "mining in or under the waters of the state" and " mining in or under coastal wetlands." It appears what is being asked is that we forfeit protection of our health and environment, allowing pollution of waters and creation of huge ponds of toxic waste in the process of mining, without any oversight or requirement for clean up by the corporation who is profiting from said mining. Not in our name please; we cannot allow the devastation that has happened to the landscape that similar mining practices have left in Tennessee and other states who allow open pit/mountaintop removal mining. Please take a look at the devastation and long term pollution of waters in these areas, and protect our land and waters from undergoing the same fate. This is certainly not worth it in terms of jobs; and the profit will be taken by Irving out of the country. I ask for your consideration as well, of the toxic nature of both the methods and the excavation itself; we have enough cancer in Maine already, much of it environmentally connected. (140)

   Response: See Response to Comment #1.

Section 1(B)

4. *Comment:* The proposed changes to section 1.B (3) and (4) are positive and avoid the unintended ban on mining in Maine caused by the original language. We understand from the Department's commentary accompanying these changes that these revisions are intended to acknowledge that mining may occur "in groundwater, under waters of the state and in freshwater wetlands," subject, of course, to all permitting requirements, including NRPA, as applicable. See Jeff Crawford's December 2, 2013 memo to the Board, p 2. We also request that the Department acknowledge explicitly here or elsewhere in the rules that surface waters or wetlands may need to

be relocated as part of a mining project, and that this is allowed, assuming applicable permit standards are satisfied, including NRPA. This would allow mining to occur in the area previously occupied by the relocated surface water or wetland, assuming NRPA and other applicable standards are satisfied. (177)

Response: The Department's amended proposal allows for mining in areas with groundwater, mining underneath these resources, and the management of surface and subsurface waters (with approval pursuant of the Natural Resources Protection Act and other applicable requirements) and mining under the identified resources. Excavation, dredging and other methods of removing metallic mineral ore from these resources is not allowed. No changes were made as a result of this comment.

5. *Comment:* Section 1 (B), 1.B.(4): Please do NOT allow mining in or under coastal wetlands. Quite apart from purely environmental considerations, Maine's fishing industry depends on the health of our coastal wetlands. Pollution in this area would be impossible to remediate. It is not a risk worth taking. (148)

   Response: The Department's proposal does not allow mining in or under coastal wetlands. No changes were made as a result of this comment.

6. *Comment:* Section 1B 3 and 4 changes do not express a clear standard of what is prohibited and why. It only clarifies that panning is still allowed. What was needed, as I previously testified, was clarification of the aims and purposes and of specific applicable statutory authority. These modifications reduce clarity. Reduced clarity as Sue Lessard correctly noted, invites litigation and dispute. A rule should offer clarity, purpose and cite clear authority. Sulfide mining in, on, or under ground and surface waters is exactly where the risk arises and therefore exactly where the greatest clarity and the clearest authority needs to be expressed. That's where the greatest opportunity and need is to prospectively insure adequate control of contaminants. Better language, especially with the term "prohibitions" deleted and a better reframing as "Criteria for Approval" would plainly say that the proximity to, and interconnection with, "waters of the state" is the principal concern in sulfide mining and at least make it very clear that no permit will be issued for any exploration, mine & closure in or under "waters of the state unless the applicant can prospectively demonstrate control of all contaminants with a potential adverse effect on those waters This completely available option (ie not in conflict with the mining statute or any other applicable environmental law) not only provides a clear statement of purpose and authority but would have been the correct response to Irving/Doyle/Hourihans complaint that the previous wording effectively prohibited mining. This further obfuscation of policy and intent to accommodate the Irving contingent is completely the wrong response if the aim is adequate natural resource protection. This intersection of sulfide mining in proximity to ground and surface waters is the whole heart of the potential for massive non remedial environmental loss. The correct response, as I testified October 28, was better clarification of minimum permitting standards and clear source of authority. (159)

Response: The Department's proposal establishes several categories of de facto "prohibitions" under which a mining permit will not be issued. Heap or percolation leaching are prohibited in statute, as is mining for uranium or thorium ore. The proposal's restrictions against the removal of ore from great ponds, rivers, brooks and streams, and coastal wetlands is intended to afford the necessary environmental protections for these resources. With respect to the approval criteria for mining permits, it should be noted that these criteria are established in statute at 38 M.R.S. § 490-OO(4). No changes were made as a result of this comment.

7. *Comment:* The commenter objects to Permitting mining in or under the "waters of the state" and "in or under coastal wetlands," which would allow water pollution at the mining site. (174)

   Response: See Response to Comments #1.

Section 2. Definitions

8. *Comment:* Section 2(I)(AAAA) Please clarify whether this definition applies only to underground operations, or to surface operations as well. Mobilized equipment in surface mining would not be entering an "underground environment," but would instead always be operating in a surface environment. It also is not clear what "excavation support" means. Does removal of overburden trigger full funding of a financial assurance trust? We understood from the Board's deliberations that it would not; the key would be removal of ore. Please clarify. (177)

   Response: The definition of "turning under" was removed from the proposed rule. The Department's proposal replaced this term with the phrase "removal of overburden, waste rock or ore." With respect to financial assurance requirements, the removal of overburden, waste rock or ore would all trigger full funding. No changes were made as a result of this comment.

9. *Comment:* Section 2(I)(AAAA) The term "turning under" is not adequately defined in the rule. We were also unable to find any definition of this term on the internet. The Board should also define the term "rock muck". Notwithstanding our suggestion to define these unclear terms, NRCM believes that mining companies should pay the full cost of financial assurance, as verified by a qualified third party, prior to construction, not prior to "turning under". This would render use of the terms "turning under" and "rock muck" unnecessary. (163)

   Response: This definition was eliminated from the proposed rule. The term was replaced by the phrase "before any overburden, waste rock, or ore is removed, exposed or processed."

10. *Comment:* Section 2(I) & 20L A definition for air contamination (2 I) with additional language added in 20L but there is no corresponding , mining specific expansion or clarity of policy on protection and prohibitions on contaminants. It is general "off the shelf" language completely ineffectual and uninformed as mining specific. A significant mining specific aspect of that should be addressed are the formations of cyanide compounds that can become persistent and air borne at levels harmful to life(De-coding CyanideAn Assessment of Gaps in Cyanide Regulation at Mines A Submission to the European Union and theUnited Nations Environmental Programme Dr. Robert E. Moran 22 February 2002) In relative terms, air pollution is a much less significant environmental risk in metallic mining than preventing ARD generation and toxic metals leaching so although an appropriate addition (still needing further development to establish mining specific performance standards ad key areas of concern), this inclusion does not add significantly to natural resources protection. The proposed addition Prof Eastrys term "turning under" clears up and adds nothing to the rule over all. In general no term should appear in definitions that has not been used repeatedly In the rule. I did not find the term in any mining dictionary and do not see it used in the underground mining applications I have collected. I have ever seen it in any statutes or regulations on sulfide mining. It has no point no context on its own and it opens the expectation or suggestion that these materials are presumptively free of risk or not included in the tonnnage limitations on advanced exploration in which case that would actually detract from natural resources protections. So the net effect of 2(i) & 20 L is no improved protection of natural resource and possibly introducing further confusion and attending opportunities for litigation and dispute between DEP and applicants or permitees. (159)

    Response: The Department's proposal addresses the discharge of air contaminants in a manner consistent with statutory requirements. With respect to the term "turning under", this term has been replaced by the phrase "before any overburden, waste rock, or ore is removed, exposed or processed." No changes were made as a result of this comment.

Definition of Mining Area

11. *Comment:* The definition of "Mining Area" must be clarified. Our concern here is the lack of any proposed changes in the draft, despite extensive comment at the hearing and in written comments that the existing draft is vague. The definition of "Mining Area" is still unclear—and this is a substantive issue. The Board should allow for public comment on language changes to address this issue. Before providing comments on the proposed substantive changes, TU wishes to express our concern that one item that has received considerable public comment and discussion by the board is not included in these proposed changes: clarification of the definition of "Mining Area" and whether that definition refers to—and allows groundwater contamination within—a single, large land area containing multiple mining activities. Alternatively, "Mining Area" may refer to a collection of discrete mining activities, each separate from the others, with land areas in between that are not part of the "Mining Area" and where groundwater contamination must be avoided. In written

testimony and in comments at the Public Hearing and in several Deliberative Sessions with the BEP, DEP staff have repeatedly suggested that the rules are intended to adopt the concept of "Mining Area" as a collection of discrete activities, each with its own boundary. (These have been repeatedly referred to as "bubbles".) TU and other commenters who seek to make the rules more protective of the environment have repeatedly suggested that drafting changes are required to make this clear. (This issue was one of a number of proposed changes included in proposed legislation last year that passed the House but failed to pass the Senate.) A few commenters on the draft rule—all representing mining interests—suggested that the rules should instead make clear that the "Mining Area" had a single boundary, therefore allowing a much larger area to contain contaminated groundwater. DEP staff at the Deliberative Sessions indicated that they are working on changed language regarding this issue, but no changes have been included in this package for review. Moreover, DEP staff have indicated that these changes will be non-substantive and therefore not subject to any additional public review or comment. Whatever the Board's perspective on this important issue, there is no question that commenters with a range of opinions on how to resolve it believe the issue is important; that the existing draft is unclear; and that changes are necessary to resolve the issue. This is the very definition of a "substantive" issue, and TU does not believe it is appropriate to treat it as a routine change with no opportunity for public input. Instead, we suggest, as we did in our initial written comments, that the BEP add a definition of "Mining Activity Area" and that the definition of "Mining Area" be amended as follows (proposed additions are underlined): Mining activity unit. "Mining activity unit" means an area of land within a mining area where a particular mining activity takes place, including, but not limited to, an area from which earth material is removed; an area where overburden, waste rock and ore are stored; a tailings impoundment or other tailings storage area; an area where ore is processed; an area where groundwater and surface water management treatment systems are located; a waste disposal area; and an area where any other activity associated with mining occurs. Mining area. "Mining area" means an area of land described in a permit application and approved by the department, including but not limited to land from which earth material is removed in connection with mining, the lands on which material from that mining is stored or deposited, the lands on which beneficiating or treatment facilities, including groundwater and surface water management treatment systems, are located or the lands on which water reservoirs used in a mining operation are located. A mining area may include more than one activity unit. (150)

Response: Although not part of the Board's December 3, 2013 posting, it should be noted that the Department has amended its proposal (Section 9(G)(1)(a)) to clarify that each mining activity must have a defined mining area:

(a) A map showing the metallic mineral mining area and affected area, including a rationale and basis supporting the proposed mining area boundaries and affected area boundaries and locations of protected natural resources as defined at 38 M.R.S. §480-B(8) within, adjacent to or

potentially impacted by the mining area or affected area. Each mining activity must have a defined mining area;

In addition, the Department has amended the proposal to reference mining areas and affected areas, as appropriate. No changes were made as a result of this comment from the 10-day written comment period.

12. *Comment:* I am particularly concerned that you seem to be considering changes which will make increase the water contamination significantly over a broader geographical area and allow Irving too much time to clean up any resulting pollution. (170)

    Response: The Department recognizes the commenter's concerns, and has developed a rule that provides for stringent environmental protections while adhering to the statutory requirements established in the Maine Metallic Mineral Mining Act. No changes were made as a result of this comment.

13. *Comment:* Overburden Definition. I am writing once again having heard about the redefinition of overburden and other soils that will need to be removed to get to ore. This would allow "exploratory" mining with no oversight or regulation and is pure insanity fueled by greed. Think about you what your children and grandchildren will be living with. The high levels of arsenic in the soils around Bald Mountain will eventually end up in the St. Croix, the Bay of Fundy and Gulf of Maine ruining fisheries of all sorts. Please examine your conscience and reject this power grab. (115)

    Response: The Department has amended its proposal to clarify that all mine waste is included in the tonnage limits for either Tier One or Tier Two advanced exploration activities. With respect to the 5,000 ton limit on bulk sampling, the Department's proposal is consistent with the tonnage limits in the existing Chapter 200 and in other political jurisdictions. The definition of "mine waste" has been revised to state:

    Mine Waste. "Mine waste" means all material, including but not limited to, overburden, rock, lean ore, leached ore, or tailings that in the process of mining and beneficiation has been exposed or removed from the earth during ~~all waste materials (solid, semi-solid, or liquid) associated with exploration,~~ advanced exploration~~,~~ and mining activities. ~~Such wastes include, but are not limited to, rock, tailings, and other process waste such as leachate and wastewater treatment plant residuals. Land clearing debris, wood waste, wastes from solvent extraction and electrowinning are not considered mine waste for purposes of this rule.~~ Notwithstanding 06-096 CMR 850, mine waste is not hazardous waste to the extent mine waste has been excluded by Subchapter 3 of the Resource Conservation and Recovery Act, 42 CFR 6901 *et seq* and 40 CFR 261.4(b)(3) and (b)(7) (July 1, 2013).

SUBCHAPTER 2: EXPLORATION AND ADVANCED EXPLORATION

14. *Comment:* It is unclear what purpose or benefit the increased regulation of exploration activities, as proposed, will accomplish. Moreover, the regulations will add significant cost, time and effort. Presumably all of this information would be contained in a permit application and be reviewed at the time an applicant might file– in the event a project does not progress to the permit application stage, a) what harm occurred if these regulations did not exist? b) What benefit is gained if they do? and finally, c) in either case how is the added cost to the prospective mineral developer justified? (168)

    Response: The Department's proposal established a two-tiered approach based on the potential impacts of advanced exploration activities. The Department believes that both tonnage and acreage restrictions are appropriate and necessary to ensure the protection of environmental resources both during and after the performance of advanced exploration activities. Similar approaches are used in other jurisdiction both in Canada and the United States.

8. Advanced Exploration Activities

8(C) and (D)

15. *Comment:* The size of the sampling area should be based on the need to make good engineering decisions relative to the feasibility of mining a particular deposit. Rather than specify the sampling areas size or volume, the commenter suggests the rules should prescribe environmental monitoring criteria or reclamation standards. (153)

    Response: See response to comment #14 above.

SUBCHAPTER 3: PERMITS

9. Application Process Requirements

16. *Comment:* The fees as proposed are excessive and onerous. Also the "one size fits all" approach is baffling as there are a wide range of potential mineral projects in Maine. (168)

    Response: The framework law defines advanced exploration as mining so the fees associated with mining projects established in 38 M.R.S. § 352 (4-A) apply to advanced exploration projects. This fee cannot be changed through the rulemaking process and any fee change requires legislative approval. Currently, there is no permit fee associated with exploration activities.

17. *Comment:* Consulting Gard Guide and only this very choice and universally respected guidance and findings of the world's top experts it was possible to frame effective central principles. For example something along these lines could have been framed just from common sense in applying this most relevant science to the task of rulemaking and would accomplish so much more effective natural resource protection

and the prevention of unlimited unfunded public liability than is expressed in this incompetent rule. Chapter 653 2011 only authorizes the issuance of a permit for mining and exploration activities, including closure plans, that can demonstrate that the proposed activities; (a) can effectively prevent or control the generation of any contaminants at levels that would 'pollute, impair or destroy' land, air, or any waters of the state including on site ground and surface waters connected to offsite waters of the state. Connected to water of the state refers both to preexisting natural connections as well as to connections or changes in hydrology or water table levels which might be created through onsite activity. (b) can be reasonably expected to result in a naturally self-sustaining post closure environment as close as practicable in eco system function and quality as the pre-mining site. (c) demonstrates that all phases of the exploration, mine plan and closure plan can satisfy all requirements of other applicable law including but not limited to the Natural Resources Protection Act., Title 12, the Clean water Act. (159)

Response: The framework law at 38 M.R.S.A. § 490-OO(2) and subchapter 3 subsection 9.B contain the requirements for application content and framework law at 38 M.R.S.A. § 490-OO(4) and subchapter 3 subsection 11 contain the criteria for permit approval. The process requires extensive baseline study, monitoring plans, characterization and conditions for transfer of ownership. No changes were made based on this change.

18. *Comment:* Open pit mining for sulfide minerals is a technique that is suitable where the annual rainfall is measured in inches, rather than feet. It is completely unsuitable in a state like Maine that averages over four feet of rain annually and has virtually no carbonate minerals to buffer the acid mine drainage (AMD) that is inevitable when the mine tailings are exposed to air and water. The Bald Mountain site is a potential environmental disaster in the making that threatens significant Class A waters that harbor a native brook trout fishery that provides ecotourism jobs to hundreds of Aroostook County residents and recreation to thousands of Maine residents who come to this area to fish. Because of Maine's geology, headwater streams such as Bald Mountain Brook and Clayton Stream are very low in alkalinity and are particularly sensitive to acid runoff and the native brook trout are extremely sensitive to exposure to aluminum, copper, zinc, and arsenic that will inevitably be mobilized by the mining operations. The ore bodies at the Bald Mountain site in particular have extremely high arsenic content (up to 29,155 ppm, nearly 3%) that will contaminate both ground and surface water if mobilized. Arsenic is a known human carcinogen and has been shown to reduce IQ in children who are exposed. (166)

    Response: The framework law and the rule prohibit discharges to waters of the State. The rule contains permit approval criteria that require that the mining operation will not result in a direct or indirect discharge that, either by itself or in combination with other discharges, will cause or contribute to nonattainment of applicable surface water quality standards under the Water Classification Program, 38 M.R.S. §§ 464-469; and that the mining operation will not result in a direct or indirect discharge that, either by itself or in combination with other

discharges, will cause or contribute to nonattainment of groundwater standards outside the mining areas under the Water Classification Program, 38 M.R.S. §§ 464, 465-C and 470. These standards must be met regardless of precipitation rates in Maine.

9(B)

19. *Comment:* Disclosure of all financial interests has no effect on natural resources protection (glad to see it through additional clarification and explanation would be helpful.)

    Response: Disclosure of financial interest can be helpful in assigning financial responsibility for closure, cleanup and remediation costs in the unlikely event the financial assurance mechanism is insufficient to address all costs. No change.

Section 9(B)(1)(c) (Financial Interest).

20. *Comment:* There needs to be a definition of Financial Interest or what that means. Section 9.B(1)(c) is quite broad, because the term "financial interest" is not defined. It could be interpreted to include all investors holding stock in an Applicant company, which for a public company could be tens of thousands of people. It could also include contractors and subcontractors that are working on the project or are anticipated to financially benefit from the project's permit approval. Is that the Department's/Board's intent? We recommend looking to the following language from DEP's Chapter 400.12.A (1)(b) and (c) to define" financial interest":

    "(b) If the applicant is a business entity, any officers, directors, and partners,

    (ii) all other persons or business concerns, having managerial or executive authority and holding more than 5 percent of the equity in or debt of that business unless the debt is held by a chartered lending institution, all other persons or business concerns other than a chartered lending institution having a 25 percent or greater financial interest in the applicant, and

    (iv) the managerial person with operational responsibility for the facility or activity; or

    (c) If the applicant is a public entity, all persons having managerial or executive authority over the solid waste facility or activity." (168) (177)

    Response: A definition of financial interest was added to the rule consistent with the comment made by commenter #177. The suggested change was made to the rule.

Water Protection, Wastewater Treatment, Wet Waste, and Perpetual Treatment
Section 9(D)(12)

21. *Comment:* This section allows perpetual wastewater treatment for "wet waste" management units, a term that is not defined. NRCM also opposes permitting any mine requiring perpetual wastewater treatment. Any waste left on a mining site could require treatment of liquids. For example, if a mine treats runoff from a waste rock pile, is the waste rock pile a wet waste management unit? As written, the term wet waste management unit could apply to any waste on a mine site, and thus these changes allow perpetual treatment for all mining waste. More importantly, NRCM opposes permitting mines that require perpetual treatment in any form. Dr. David Chambers, a geophysicist with 35 years of experience in mineral exploration and development and President of the Center for Science in Public Participation, has written a paper on why permitting mines that require perpetual wastewater treatment is a bad idea. In it, he states: "The best policy for an agency with the responsibility for water protection is to deny any application for a mine that includes a requirement for long-term water treatment…The long-term risk to the public, who is the ultimate guarantor for any long-term cleanup, is too great". NRCM has spoken many times in person with Dr. Chambers on this issue, and he believes that a regulatory agency should not issue a permit for any mine that cannot complete wastewater treatment within at most 10 years of closure. (163)

    Response: The Department is proposing to define "wet mine waste units" as, "Wet mine waste unit means a mine waste unit that uses water as a cover to minimize oxygen advection and diffusion to Group A waste in a manner that effectively inhibits formation of acid rock drainage." By using this definition, the Department's intent is to make it clear that wet waste mine units are distinct from the examples listed by the commenter, and that these units utilize water covers for the purpose of minimizing oxygen advection and diffusion to inhibit formation of acid rock drainage.

    The Department believes that the addition of wet mine waste units within the rule does not mean that the Department will be permitting mines requiring perpetual effluent water treatment. As stated at the December 3, 2013 deliberative session with the BEP, wet mine waste units will require effluent water treatment for an indefinite period of time, which may be less than 30 years or greater than 30 years. Given the ability of wet mine waste units to prevent acid rock drainage (reference the Global Acid Rock Drainage Guide, 2012, Section 6.6.7), the Department did not want to exclude the use of this technology. Likewise, the Department did not want to permit the use of this technology if the proper resources were not allocated to ensure its successful implementation. The Department has included language associated with wet mine waste units that may exceed the 30-year post-closure period, "…provided a Department-approved long-term monitoring and maintenance plan is in effect, and a Department-approved financial assurance mechanism is in effect for the length of term determined to be necessary by the Department." As part of any application including a wet mine waste unit, the applicant will need to propose an expected period of time post-closure that effluent water treatment will be necessary. The Department will evaluate the proposal and either accept, reject, or modify the

post-closure time period for effluent water treatment. The Department believes this language provides an appropriate balance between consideration of available technologies and environmental protection. No change was made.

22. *Comment:* 9(d) 12 had almost reasonable protective and even clear language that closure plans may not rely on "perpetual treatment methodologies" (except as confounded and undermined by other aspects of the rule that define perpetual treatment as no longer than 30 years) Adding that treatment past 30 years is not perpetual treatment basically conflicts with the rules own already insufficient definition of perpetual treatment and refutes the prohibition on perpetual treatment methodologies in the preceding sentence. (i) It can be predetermined with reasonable certainty; (i) whether long term effective closure relying on natural passive systems can be attained; (ii) whether indefinite dependence on active water pollution control system is the only possible effective method of contaminant control post closure. If the applicant cannot demonstrate prospectively that their closure plan will not need to rely on active long term active water quality control and that adequate permanent control can be attained through natural, passive systems, the permit should not be issued. Period. Even with those mine and closure plans that are able to demonstrate likely attainment of a permanent neutral (or background) water quality and drainage through natural passive systems, uncertainty can arise over the course of operations about whether that will be immediately attainable as permitted and planned. We can identify and not allow those mine and closure plans which are not likely to attain acceptable water quality and drainage through natural passive systems and we shouldn't issue permits for those plans. As a permit amendment we can make accommodation for an unexpected, unplanned very short term reliance on active treatment but allowing active treatment for up to 30 years is already foolish. Allowing active treatment of wet closures for more than 30 years invites disaster.

    Response: The Department believes that the addition of wet mine waste units within the rule does not mean that the Department will be permitting mines requiring perpetual effluent water treatment. As stated at the December 3, 2013 deliberative session with the BEP, wet mine waste units will require effluent water treatment for an indefinite period of time, which may be less than 30 years or greater than 30 years. Given the ability of wet mine waste units to prevent acid rock drainage (reference the Global Acid Rock Drainage Guide, 2012, Section 6.6.7), the Department did not want to exclude the use of this technology. Likewise, the Department did not want to permit the use of this technology if the proper resources were not allocated to ensure its successful implementation. The Department has included language associated with wet mine waste units that may exceed the 30-year post-closure period, "…provided a Department-approved long-term monitoring and maintenance plan is in effect, and a Department-approved financial assurance mechanism is in effect for the length of term determined to be necessary by the Department." As part of any application including a wet mine waste unit, the applicant will need to propose an expected period of time post-closure that effluent water treatment will be necessary. The Department will evaluate the proposal and either accept, reject, or modify the

post-closure time period for effluent water treatment. The Department believes this language provides an appropriate balance between consideration of available technologies and environmental protection.

Regarding the portion of the comment suggesting that natural, passive systems are a desirable feature during post-closure, the Department agrees. The Department has included language in Section 20 under 'Performance Standards' that requires an applicant to 'minimize the need for perpetual care', language under the design portion of section 20(H) aimed at maximizing contemporaneous reclamation (with similar language under sections 21, 23, and 24), and specific language in section 22(B)(7) stating, "…and that implemented reclamation or mitigation measures are self-sustaining." No change was made.

23. *Comment:* The state of Maine needs strong mining rules to protect our clean waters. Please do not undermine the clean waters act!!! The Magalloway River, headwaters of the Fish and Aroostook rivers, Alder Pond on the north branch of the Dead River, The west branch of the Pleasant River all need to be protected. If any mining company does any kind of mining they should be held accountable. They should not be able to degrade any waters in the state of Maine!! Mining only benefits the wealthy few, Clean water Benefits us all. As far as any cleanup goes it should all be on the mining companies. Atlantic Salmon was once as plentiful the trees, not now but we are making strides to correct that. Don't let mining be another reason for Maine's complete loss of Atlantic Salmon. Maine is the last true stronghold of the eastern Brook Trout. Don't let mining bring that stronghold to an end. We need clean water, period. All one has to do is watch T.V. to see how mining destroys thousands acres and pollutes rivers and streams. Please do not let it happen in Maine. I am a registered Maine Guide and I spend hundreds of hours on our rivers, streams, lakes and ponds each year. Many hours spent on some of the waterways mentioned above. Please do not let them be destroyed. (5)

    Response: The Department recognizes the Commenter's support for strong rules on mining and requirements to ensure the Commenter's concerns are addressed are included in the rule. No changes were made based on this comment.

24. *Comment:* Please be sure that all our natural wildlife is protected for the future. Let's not create a future problem, like when we let the paper mills trash our air and rivers. Easing the rules for mining in the state could well hinder the rights of our future generations to enjoy the air, streams, rivers, and oceans of our beautiful state. (19)

    Response: The Department recognizes the Commenter's support for strong rules on mining and requirements to ensure the Commenter's concerns are addressed are included in the rule. No changes were made based on this comment.

25. *Comment:* The Board has failed to incorporate one of the most persistent comments: that the rules cannot contain provisions for "perpetual treatment" of the mining site once operations have ceased. Perpetual treatment denotes that it would be acceptable

for the mine operator to leave a mess that could have to be dealt with from that point forward. This is unacceptable. If a mining site cannot be cleaned up in ten years or less, it should never have been permitted in the first place. A large part of the reason that I live in Maine is for the trout fishing. Potential mining sites (especially the Bald Mountain site) threaten some Maine's best trout waters. Much of rural Maine is in desperate economic straits, but metallic mining is not the answer. Mining the type of deposits Maine has will NOT create long term prosperity, and could damage the State's largest industry, tourism, as well as one of its greatest resources: its green, environmentally friendly image that has been so essential to branding for its companies including: LL Bean, Poland Springs, Tom's of Maine, etc. Metallic mining won't fix what's wrong with rural Maine, but it can certainly ruin what's right with it. (7)

Response: The Department believes that the addition of wet mine waste units within the rule does not mean that the Department will be permitting mines requiring perpetual effluent water treatment. As stated at the December 3, 2013 deliberative session with the BEP, wet mine waste units will require effluent water treatment for an indefinite period of time, which may be less than 30 years or greater than 30 years. Given the ability of wet mine waste units to prevent acid rock drainage (reference the Global Acid Rock Drainage Guide, 2012, Section 6.6.7), the Department did not want to exclude the use of this technology. Likewise, the Department did not want to permit the use of this technology if the proper resources were not allocated to ensure its successful implementation. The Department has included language associated with wet mine waste units that may exceed the 30-year post-closure period, "…provided a Department-approved long-term monitoring and maintenance plan is in effect, and a Department-approved financial assurance mechanism is in effect for the length of term determined to be necessary by the Department." As part of any application including a wet mine waste unit, the applicant will need to propose an expected period of time post-closure that effluent water treatment will be necessary. The Department will evaluate the proposal and either accept, reject, or modify the post-closure time period for effluent water treatment. The Department believes this language provides an appropriate balance between consideration of available technologies and environmental protection. No change was made.

26. *Comment:* I urge you and the Maine Board of Environmental Protection to implement the strongest of mining rules. As a life-long fisherman and lover of the outdoors, I cherish Maine's environment, and especially Maine's brook trout populations. As you must well know, Maine supports an essential hold-out for native brook trout, our heritage fish, whose populations are diminishing throughout the northeast. Please, I implore you to protect this fishery to the utmost extent by adopting rigorously protective mining laws. I also urge you to require the cleanup of mining wastes within ten years of any mine closure. (20)

Response: The Department recognizes the Commenter's support for strong rules on mining and requirements to ensure the Commenter's concerns are addressed are included in the rule. No changes were made based on this comment.

27. *Comment:* I want you to know that I also have friends who cannot drink their water. Seems incredible in Maine, doesn't it? I sincerely hope you'll consider the importance of protecting Maine's water for us and for our kids and theirs in your deliberations about encouraging pit mining. In my opinion, it is a disaster waiting to happen. (28)

    Response: The Department recognizes the Commenter's support for strong rules on mining and requirements to ensure the Commenter's concerns are addressed are included in the rule. No changes were made based on this comment.

28. *Comment:* Day before yesterday, a neighbor and friend told about having to stop using her well because the ground water was unsafe. Over the years, I have heard one, then another mention the same problem. I cannot imagine how dreadful it will be when ALL of our ground waters will be low or poisoned. Please consider the tragedy, unknown or misunderstood, years ago when pit mining seemed like a job bringing jobs and wealth. It never really worked that way, did it? Now, as a state, and as a country, we know how devastating pit mines can be to the surrounding countryside and all of its living creatures. We also know the terrible cost in dollars and cents it is to clean up after these dreadful sites. We've barely begun this work, and our water is still becoming more precious and scarce. Please consider the people of Maine, of the Unites States, and indeed, of our world when considering adding pit mining to our "economy"! The cost is far greater than we can imagine. (29)

    Response: The Department recognizes the Commenter's support for strong rules on mining and requirements to ensure the Commenter's concerns are addressed are included in the rule. No changes were made based on this comment.

29. *Comment:* The commenter suggests that allowing perpetual wastewater treatment virtually guarantees that mining companies will minimize any investment they make in preventing wastewater pollution during and after mining activity. Furthermore, their waste water treatment systems will certainly fail probably multiple times during such an extended timeframe. (1)

    Response: The Department recognizes that some length of time after closure may be necessary for facilities to conduct water treatment. Rather than arbitrarily set a short time-frame, the Department elected to allow up to 30 years, recognizing that it will be in the facility's best economic interest to minimize this time period. The Department believes that the addition of wet mine waste units within the rule does not mean that the Department will be permitting mines requiring perpetual effluent water treatment. The only exception the Department has built into the proposed rule is for cases where a 'wet cover' is the most appropriate choice of technology for preventing acid rock drainage. In this narrowly defined circumstance, the proposed rule requires, "…a Department-approved long-term

monitoring and maintenance plan…" to be in effect as well as, "…a Department-approved financial assurance mechanism…in effect…for the length of term determined to be necessary by the Department." As part of any application including a wet mine waste unit, the applicant will need to propose an expected period of time post-closure that effluent water treatment will be necessary. The Department will evaluate the proposal and either accept, reject, or modify the post-closure time period for effluent water treatment. With all of these measures in place, the Department believes adequate safeguards are incorporated into the rule. No change was made.

30. *Comment:* The commenter contends that the revised rule does not address their initial comments regarding: 1) a lack of strong safeguards to minimize contamination of surface water through contaminated groundwater, 2) no detailed water quality monitoring requirements, 3) weak provisions regarding erosion control or storm water monitoring and no discussion of mitigating the current and future occurrence of a greater number and greater intensity of storm events due to a changing climate. (1)

    Response: Section 22 of the rule has been revised to clarify monitoring requirements and the relation of the monitoring requirements to performance criteria and to corrective actions (see Section 22(B)(10 – 16) and Section 30). The existing language included a requirements to assess groundwater discharges to surface water (Section 22(B)(1)(a)(iii)); new language in Section 22(5) clarifies that the Department may require monitoring of water from site facilities, including stormwater and underdrain discharges.

31. *Comment:* The proposed changes to the draft mining rules increase the risk to Maine's environment and taxpayers. They would allow mining companies to treat their wastewater forever, which will make it easier for mining companies to avoid using best practices to prevent pollution in the first place. This also increases the likelihood of an environmental disaster from mining pollution, because any wastewater treatment plant is bound to fail over the course of hundreds or thousands of years. Please do not pass rules that would allow permits for any mining company that says it needs more than 10 years of wastewater treatment after closure. (2, 3, 6, 8, 10, 11, 12, 13, 14, 15, 17, 23, 24, 25, 26, 27, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53 ,54, 55, 56, 57, 59, 60, 73, 75, 76, 77, 82, 83, 85, 94, 101, 112, 113, 114, 120, 123, 126, 135, 146, 147, 160, 173, 175, 180, 181)

    Response: The Department recognizes that some length of time after closure may be necessary for facilities to conduct water treatment. Rather than arbitrarily set a short time-frame, the Department elected to allow up to 30 years, recognizing that it will be in the facility's best economic interest to minimize this time period. The Department believes that the addition of wet mine waste units within the rule does not mean that the Department will be permitting mines requiring perpetual effluent water treatment. The only exception the Department has built into the proposed rule is for cases where a 'wet cover' is the most appropriate choice of technology for preventing acid rock drainage. In this narrowly defined

circumstance, the proposed rule requires, "…a Department-approved long-term monitoring and maintenance plan…" to be in effect as well as, "…a Department-approved financial assurance mechanism…in effect…for the length of term determined to be necessary by the Department." As part of any application including a wet mine waste unit, the applicant will need to propose an expected period of time post-closure that effluent water treatment will be necessary. The Department will evaluate the proposal and either accept, reject, or modify the post-closure time period for effluent water treatment. With all of these measures in place, the Department believes adequate safeguards are incorporated into the rule. No change was made.

32. *Comment:* I write to you to support the rejection of the proposed exemption of wet mining waste from the ban on perpetual treatment of mining waste. As a long time sportsman who values Maine's wonderful outdoor recreational resources I urge you to take steps to protect them from the effects of acid mine waste and other pollutants. (16)

    Response: The Department believes that the addition of wet mine waste units within the rule does not mean that the Department will be permitting mines requiring perpetual effluent water treatment. As stated at the December 3, 2013 deliberative session with the BEP, wet mine waste units will require effluent water treatment for an indefinite period of time, which may be less than 30 years or greater than 30 years. Given the ability of wet mine waste units to prevent acid rock drainage (reference the Global Acid Rock Drainage Guide, 2012, Section 6.6.7), the Department did not want to exclude the use of this technology. Likewise, the Department did not want to permit the use of this technology if the proper resources were not allocated to ensure its successful implementation. The Department has included language associated with wet mine waste units that may exceed the 30-year post-closure period, "…provided a Department-approved long-term monitoring and maintenance plan is in effect, and a Department-approved financial assurance mechanism is in effect for the length of term determined to be necessary by the Department." As part of any application including a wet mine waste unit, the applicant will need to propose an expected period of time post-closure that effluent water treatment will be necessary. The Department will evaluate the proposal and either accept, reject, or modify the post-closure time period for effluent water treatment. The Department believes this language provides an appropriate balance between consideration of available technologies and environmental protection. No change was made.

33. *Comment:* I am writing this letter to let the BEP know that their ruling that allows mining wastes here in Maine to be treated indefinitely rather than have these sites cleaned-up and restored to a natural state is not acceptable to a lot of Mainers. It is my feeling that perpetual treatment of mining wastes, rather than having a total site restoration, sells the citizens of Maine short. When it comes to Maine's resources, I expect the BEP to weigh the long term potential gains for all of the people in the State versus the environmental impact. In this case, it appears that the long term gains will

be enjoyed by a few (Canadians); while in the short term there would be some additional employment opportunities within the State until the resource is exhausted. On the other side of the coin the degradation of another of Maine's irreplaceable resources will last forever. Is the short term gain to Maine worth the environmental impact that will threaten our heritage trout fisheries and scenic Maine wilderness forever--while a few people in Canada get rich at our expense? I think not. Please reconsider your new mining regulations and require a complete site clean-up and restoration that does not allow perpetual treatment of runoff and groundwater as low cost site mitigation. (18)

Response: The Department believes that the addition of wet mine waste units within the rule does not mean that the Department will be permitting mines requiring perpetual effluent water treatment. As stated at the December 3, 2013 deliberative session with the BEP, wet mine waste units will require effluent water treatment for an indefinite period of time, which may be less than 30 years or greater than 30 years. Given the ability of wet mine waste units to prevent acid rock drainage (reference the Global Acid Rock Drainage Guide, 2012, Section 6.6.7), the Department did not want to exclude the use of this technology. Likewise, the Department did not want to permit the use of this technology if the proper resources were not allocated to ensure its successful implementation. The Department has included language associated with wet mine waste units that may exceed the 30-year post-closure period, "…provided a Department-approved long-term monitoring and maintenance plan is in effect, and a Department-approved financial assurance mechanism is in effect for the length of term determined to be necessary by the Department." As part of any application including a wet mine waste unit, the applicant will need to propose an expected period of time post-closure that effluent water treatment will be necessary. The Department will evaluate the proposal and either accept, reject, or modify the post-closure time period for effluent water treatment. The Department believes this language provides an appropriate balance between consideration of available technologies and environmental protection. No change was made.

34. *Comment:* The most significant change on balance is away from natural resources protections towards further accommodation of JD Irving's concerns in a way that further jeopardizes natural resource protections and further erodes quality financial assurance. It is universally recognized that the key standard for adequate natural resource protection in sulfide mines is prospectively demonstrated control of contaminants. Which is to say, best policy is not to grant permits for exploration or mine & closure plans which cannot evidence prospectively that adequate control of contaminants is attainable. Do the Chapter 200 rules as amended by these 10 additions drive to only permitting exploration or development plans which can demonstrate prospectively that adequate control of contaminants during and operations and post closure is attainable? The answer is, no. These rules as amended by these 10 changes do not prevent the permitting of exploration or mining and closure plans which are unable to prospectively demonstrate effective control of contaminant generation and migration. (159)

Response: The Department believes proposed advanced exploration and mining activities should be assessed on its technical merits and its ability to meet the standards within the Mining Framework Law and the Department's rules. A mining permit can be issued only when an applicant has demonstrated that it sis bale to meet the statutory criteria established at 38 M.R.S. § 490-OO(4). No change.

35. *Comment:* But the most egregious over reach by the board is the rule's attempt to provide the mining industry relief from the statute's requirement to provide a post closure mining site condition environmentally equivalent to the site's condition pre-mining. Under the revised statute perpetual waste treatment methodologies are not allowed. However, these amended rules try to add an exemption to this provision as it applies to wet waste management units. Under the proposed rules, the mining industry is already being allowed a 30 year post close period. It is unconscionable that the board would propose allowing an indefinite amount of time for what amounts to waste pond remediation. This clearly is way beyond what was envisioned when LD 1853 was debated and enacted. (22)

    Response: The Department believes that the addition of wet mine waste units within the rule does not mean that the Department will be permitting mines requiring perpetual effluent water treatment. As stated at the December 3, 2013 deliberative session with the BEP, wet mine waste units will require effluent water treatment for an indefinite period of time, which may be less than 30 years or greater than 30 years. Given the ability of wet mine waste units to prevent acid rock drainage (reference the Global Acid Rock Drainage Guide, 2012, Section 6.6.7), the Department did not want to exclude the use of this technology. Likewise, the Department did not want to permit the use of this technology if the proper resources were not allocated to ensure its successful implementation. The Department has included language associated with wet mine waste units that may exceed the 30-year post-closure period, "…provided a Department-approved long-term monitoring and maintenance plan is in effect, and a Department-approved financial assurance mechanism is in effect for the length of term determined to be necessary by the Department." As part of any application including a wet mine waste unit, the applicant will need to propose an expected period of time post-closure that effluent water treatment will be necessary. The Department will evaluate the proposal and either accept, reject, or modify the post-closure time period for effluent water treatment. The Department believes this language provides an appropriate balance between consideration of available technologies and environmental protection. No change was made.

36. *Comment:* I am particularly opposed to giving any mining entity 30 years to return the site to pre-mining conditions except that "wet cover" waste management techniques can go on indefinitely. "Wet cover" is another way of saying waste water ponds. Waste water ponds would essentially be dead zones that will continue to pollute surrounding areas forever. (63)

Response: The Department believes that the addition of wet mine waste units within the rule does not mean that the Department will be permitting mines requiring perpetual effluent water treatment. As stated at the December 3, 2013 deliberative session with the BEP, wet mine waste units will require effluent water treatment for an indefinite period of time, which may be less than 30 years or greater than 30 years. Given the ability of wet mine waste units to prevent acid rock drainage (reference the Global Acid Rock Drainage Guide, 2012, Section 6.6.7), the Department did not want to exclude the use of this technology. Likewise, the Department did not want to permit the use of this technology if the proper resources were not allocated to ensure its successful implementation. The Department has included language associated with wet mine waste units that may exceed the 30-year post-closure period, "…provided a Department-approved long-term monitoring and maintenance plan is in effect, and a Department-approved financial assurance mechanism is in effect for the length of term determined to be necessary by the Department." As part of any application including a wet mine waste unit, the applicant will need to propose an expected period of time post-closure that effluent water treatment will be necessary. The Department will evaluate the proposal and either accept, reject, or modify the post-closure time period for effluent water treatment. The Department believes this language provides an appropriate balance between consideration of available technologies and environmental protection. No change was made.

37. *Comment:* I'm writing to express my horror at the new proposed rules for mining regulation. Mines create permanent, deep damage to our waters with little long-term economic benefit to Mainers. The jobs are short lived and the waste water, or "wet cover" ponds may last forever, continually leaching heavy metals into what is our most precious resource: clean water. Looking at the world one sees how access to good water is fast becoming a great political force. Please don't let unfettered corporate interests rule what will truly enrich our great state: clean water! (64)

Response: Wet cover ponds must still satisfy the criteria of the rules. Reclamation with a wet cover pond must still reach a point of functioning without routine maintenance and water treatment. As stated at the December 3, 2013 deliberative session with the BEP, wet mine waste units will require effluent water treatment for an indefinite period of time, which may be less than 30 years or greater than 30 years. Given the ability of wet mine waste units to prevent acid rock drainage (reference the Global Acid Rock Drainage Guide, 2012, Section 6.6.7), the Department did not want to exclude the use of this technology. Likewise, the Department did not want to permit the use of this technology if the proper resources were not allocated to ensure its successful implementation. The Department has included language associated with wet mine waste units that may exceed the 30-year post-closure period, "…provided a Department-approved long-term monitoring and maintenance plan is in effect, and a Department-approved financial assurance mechanism is in effect for the length of term determined to be necessary by the Department." As part of any application including a wet mine waste unit, the applicant will need to propose an

expected period of time post-closure that effluent water treatment will be necessary. The Department will evaluate the proposal and either accept, reject, or modify the post-closure time period for effluent water treatment. The Department believes this language provides an appropriate balance between consideration of available technologies and environmental protection. No change was made.

38. *Comment:* Section (D)(12) regarding wet management techniques is another way of allowing huge ponds of polluted water. The problem with open pit metallic mining is that it needs perpetual treatment. This section says, "Waste management plans shall not include "perpetual" treatment methodologies. (69)

    Response: The Department believes that the addition of wet mine waste units within the rule does not mean that the Department will be permitting mines requiring perpetual effluent water treatment. As stated at the December 3, 2013 deliberative session with the BEP, wet mine waste units will require effluent water treatment for an indefinite period of time, which may be less than 30 years or greater than 30 years. Given the ability of wet mine waste units to prevent acid rock drainage (reference the Global Acid Rock Drainage Guide, 2012, Section 6.6.7), the Department did not want to exclude the use of this technology. Likewise, the Department did not want to permit the use of this technology if the proper resources were not allocated to ensure its successful implementation. The Department has included language associated with wet mine waste units that may exceed the 30-year post-closure period, "…provided a Department-approved long-term monitoring and maintenance plan is in effect, and a Department-approved financial assurance mechanism is in effect for the length of term determined to be necessary by the Department." As part of any application including a wet mine waste unit, the applicant will need to propose an expected period of time post-closure that effluent water treatment will be necessary. The Department will evaluate the proposal and either accept, reject, or modify the post-closure time period for effluent water treatment. The Department believes this language provides an appropriate balance between consideration of available technologies and environmental protection. No change was made.

39. *Comment:* I'm writing to oppose any changes to provisions of open pit mining rules that would increase water pollution in any way (ie: the elimination of "mining in or under the waters of the state" and "mining in or under coastal wetlands" from Subchapter 1: General Provisions, Part B. Prohibition). (72)

    Response: See Response to Comments #1.

40. *Comment:* The Department of Environmental Protection is proposing a change to Section 9(D)(12), in which it is suggesting the wording: "Waste management plans shall not include perpetual treatment methodologies. For the purpose of this rule, any treatment necessary for wet waste management units in excess of the 30-year postclosure period shall not be considered perpetual treatment." As you may be aware I wrote a letter addressing perpetual treatment issues to the Environment and Natural

Resources Committee on June 3, 2013, where I expressed my support of a requirement of ending all water treatment at the end of mining, but that giving a mine a short period of time after the cessation of mining operations to stabilize water treatment would be reasonable – and a period of 5 years as has been utilized in Michigan would be an appropriate period if a post-closure treatment approach is established. Publically, I have taken a position that perpetual treatment involves too much risk to justify an agency authorizing a mine.1 I realize that this position is in large part a policy decision that articulates that the risk to the public of having to pay for water treatment is greater than the financial and social benefits that can be realized from a given mine if either the projections made in establishing the long term financial surety are not accurate,2 or if there is an unanticipated catastrophic failure.3 In making policy decisions I possess no more weight that the average citizen, and my only advantage here is that I am probably better informed on this issue than most. I am pleased to see that the Department of Environmental Protection (DEP) has taken a position on perpetual treatment that is similar to mine in the draft of Section 9(D)(12). However, the exception that DEP has suggested for "wet waste management units" creates a rather large hole in the no perpetual treatment requirement which many mines may drive through. DEP does not provide a definition of "wet waste management unit." Without a definition, it could be argued that any "waste" that was "wet" could fall into this definition – and if so it would then include all of the waste typically produced on a mine site. Even if the definition of a "wet waste management unit" were narrowly restricted to waste storage facilities that are covered with water, it could still result in the need for the perpetual treatment of a large volume of water, with commensurate financial liability. The "30-year post-closure period" used in Section 20(G)(2) to define the time differentiation between temporary and perpetual treatment is also problematic. The choice of 30 years is of course arbitrary. The science of predicting the occurrence acid rock drainage is not precise enough to calculate that acid generation will cease (or begin) in any narrowly defined time frame. No one can predict that water treatment would be required for only 30 years post-closure. There is no geochemical modelling accepted today that would support that conclusion. As an alternative to perpetual water treatment I have supported a 5 or 10 year time frame post-closure in order for reclamation measures to take full effect. However, the safest approach to defining perpetual treatment would be to say that as long as active water treatment is required, it must be assumed that water treatment will be required indefinitely. This means that a mine plan which predicts a requirement active water treatment after mining has ceased should not be allowed, and that a mine in production that cannot stop active water treatment at the end of mining must not only continue to fund operation of the water treatment post-closure, but must also provide a financial surety for indefinite treatment at the point it becomes evident post-closure active water may be required. I am suggesting that there is a distinction between active water treatment and passive/self-sustaining water treatment. Passive/self-sustaining water treatment is that which can run with little or no maintenance required. For example a wetland system that would "polish" water before entering a stream might be an example of passive/self-sustaining water treatment, where a biotreatment system that requires cleaning and regeneration every 25 years would not be passive/self-sustaining water treatment. I can appreciate the

Department's need for flexibility in implementing its regulations, but there are times when the regulations are too flexible, and this can and has led to situations where pressure from outside sources has led to interpretations of the regulations that were not intended by the drafters of these regulations. I am concerned that the exception to the Department of Environmental Protection's requirement that "Waste management plans shall not include perpetual treatment methodologies" which DEP is proposing for "wet waste management units" in Section 9(D)(12), as well as the proposed requirement that perpetual water treatment be defined as any treatment required for greater that 30 years post-closure in Section 20(G)(2), will eventually lead to abuse of DEP's intended ban on perpetual water treatment. (78)

Response: The Department is proposing to define "wet mine waste units" as, "Wet mine waste unit means a mine waste unit that uses water as a cover to minimize oxygen advection and diffusion to Group A waste in a manner that effectively inhibits formation of acid rock drainage." By using this definition, the Department's intent is to make it clear that wet waste mine units are distinct from the examples listed by the commenter, and that these units utilize water covers for the purpose of minimizing oxygen advection and diffusion to inhibit formation of acid rock drainage.

The Department has established a 30-year post-closure period as the acceptable time period for monitoring and maintenance activities, including water treatment. The proposed rule has performance standards directed at minimizing formation of acid rock drainage and metals leaching, as well as minimizing the need for perpetual treatment. In addition, the applicant is required to demonstrate that the 'Environmental Protection, Reclamation, and Closure Plan' submitted as part of the application will, "…minimize and mitigate actual and potential adverse impacts to natural resources, the environment, and public health and safety" during all phases of the life of mine, including closure and post-closure. This same plan also requires the applicant to show how contemporaneous reclamation is incorporated into the mine plan.

The Department recognizes that some length of time after closure may be necessary for facilities to conduct water treatment. Rather than arbitrarily set a short time-frame, the Department elected to allow up to 30 years, recognizing that it will be in the facility's best economic interest to minimize this time period. The Department believes that the addition of wet mine waste units within the rule does not mean that the Department will be permitting mines requiring perpetual effluent water treatment. The only exception the Department has built into the proposed rule is for cases where a 'wet cover' is the most appropriate choice of technology for preventing acid rock drainage. In this narrowly defined circumstance, the proposed rule requires, "…a Department-approved long-term monitoring and maintenance plan…" to be in effect as well as, "…a Department-approved financial assurance mechanism…in effect…for the length of term determined to be necessary by the Department." As part of any application including a wet mine waste unit, the applicant will need to propose an expected

period of time post-closure that effluent water treatment will be necessary. The Department will evaluate the proposal and either accept, reject, or modify the post-closure time period for effluent water treatment. With all of these measures in place, the Department believes adequate safeguards are incorporated into the rule. No change was made.

41. *Comment:* We've been backpackers, hikers, and anglers together for almost four decades. Maine's clean, beautiful places are important to us, its waters and the creatures which dwell within them especially so. Much of our free time is spent on Maine's rivers, brooks, lakes and ponds. We also integrate them into our working life, through bamboo rod making, through writing books. We celebrate internationally the unique, clean, cold, and clear brook trout and salmon waters of Maine. The preservation of those waters is very, very high on our list of priorities. When we are not in Maine, we frequent places we supposed to be similar. What we've found, wherever there is mining, is a nightmare aftermath. Colorado, Wyoming, Montana, Alaska, British Columbia, the Yukon, Labrador, Quebec. Mining waste, mining poisoned water, landscapes and pools of contamination. Some of these sites are old, perpetually now in the hands of future generations of clean-up, with the culprit company no longer involved. It is shocking. We have never seen a site reclaimed and restored after mining to any degree of satisfaction. Visit the Flambeau site yourself, and ask, is this what I want for my home? It is just one example of a problem that doesn't seem to end, although there are those who would dismiss it. The following was from a law suit just last year: A federal court ruled yesterday that Flambeau Mining Company (FMC) violated the Clean Water Act on numerous occasions by allowing pollution from its Flambeau Mine site, near Ladysmith, Wis., to enter the Flambeau River and a nearby tributary known as Stream C....The complaint charged that Flambeau Mining Company (a subsidiary of Kennecott Minerals Company / Rio Tinto) was violating the Clean Water Act by discharging stormwater runoff containing pollutants, including toxic metals like copper and zinc, from a detention basin known as a biofilter. As life-long educators, we just have to ask: are we so simple that we cannot learn from those mistakes? We have faith that this is not the case, and so we appeal to you. Please, require such safeguards that we do not find ourselves in the same positions. Please, do not exempt wet mining wastes from the ban on perpetual treatment. Please, set a short, maximum period for completing cleanup, ten years or less. (87)

Response: The Department believes that the addition of wet mine waste units within the rule does not mean that the Department will be permitting mines requiring perpetual effluent water treatment. As stated at the December 3, 2013 deliberative session with the BEP, wet mine waste units will require effluent water treatment for an indefinite period of time, which may be less than 30 years or greater than 30 years. Given the ability of wet mine waste units to prevent acid rock drainage (reference the Global Acid Rock Drainage Guide, 2012, Section 6.6.7), the Department did not want to exclude the use of this technology. Likewise, the Department did not want to permit the use of this technology if the proper resources were not allocated to ensure its successful implementation. The

Department has included language associated with wet mine waste units that may exceed the 30-year post-closure period, "…provided a Department-approved long-term monitoring and maintenance plan is in effect, and a Department-approved financial assurance mechanism is in effect for the length of term determined to be necessary by the Department." As part of any application including a wet mine waste unit, the applicant will need to propose an expected period of time post-closure that effluent water treatment will be necessary. The Department will evaluate the proposal and either accept, reject, or modify the post-closure time period for effluent water treatment. The Department believes this language provides an appropriate balance between consideration of available technologies and environmental protection. No change was made.

42. *Comment:* We are very concerned about the proposed mining rules because acid mine drainage and metal leaching from poorly designed mining waste systems, has created more miles of fishless water in the US than any other industrial activity. Strong mining rules are essential to protect Maine's water and their fish if mining is conducted in Maine. The most important element of strong rules is a requirement that mining sites and mining wastes be cleaned up when mining ends. Far too often, mining companies plan for systems where mining wastes are left on site and require water treatment forever to prevent harm to downstream waters. These systems almost inevitably fail, or the costs of their maintenance get passed on to local communities and state and federal governments. Since 2012, when JD Irving proposed to radically weaken Maine's mining laws, we have consistently pressed for rules that require sites to be cleaned up so that they do not require "perpetual treatment". This is critical to the long-term safety of everything that lies downstream of each potential mining site. As currently written, the DEP rules will not protect Maine's waters, or their trout and salmon fisheries from acid mine drainage and other water pollution. The rules also conflict with the clear desires of the vast majority of comments received on this matter previously to ensure that mine sites must be cleaned up quickly. I and the 176 members of the Mollyockett Chapter ask the BEP to reject the proposed exemption of wet mining wastes from the ban on "perpetual treatment" of mining wastes and require that waste management plans be designed to complete treatment within 10 years of mine closure. (92)

Response: The Department believes that the addition of wet mine waste units within the rule does not mean that the Department will be permitting mines requiring perpetual effluent water treatment. As stated at the December 3, 2013 deliberative session with the BEP, wet mine waste units will require effluent water treatment for an indefinite period of time, which may be less than 30 years or greater than 30 years. Given the ability of wet mine waste units to prevent acid rock drainage (reference the Global Acid Rock Drainage Guide, 2012, Section 6.6.7), the Department did not want to exclude the use of this technology. Likewise, the Department did not want to permit the use of this technology if the proper resources were not allocated to ensure its successful implementation. The Department has included language associated with wet mine waste units that may exceed the 30-year post-closure period, "…provided a Department-approved

long-term monitoring and maintenance plan is in effect, and a Department-approved financial assurance mechanism is in effect for the length of term determined to be necessary by the Department." As part of any application including a wet mine waste unit, the applicant will need to propose an expected period of time post-closure that effluent water treatment will be necessary. The Department will evaluate the proposal and either accept, reject, or modify the post-closure time period for effluent water treatment. The Department believes this language provides an appropriate balance between consideration of available technologies and environmental protection. No change was made.

43. *Comment:* Please do not allow perpetual treatment and please require that mining companies bear their own financial risks. (102)

    Response: The Department believes that the addition of wet mine waste units within the rule does not mean that the Department will be permitting mines requiring perpetual effluent water treatment. As stated at the December 3, 2013 deliberative session with the BEP, wet mine waste units will require effluent water treatment for an indefinite period of time, which may be less than 30 years or greater than 30 years. Given the ability of wet mine waste units to prevent acid rock drainage (reference the Global Acid Rock Drainage Guide, 2012, Section 6.6.7), the Department did not want to exclude the use of this technology. Likewise, the Department did not want to permit the use of this technology if the proper resources were not allocated to ensure its successful implementation. The Department has included language associated with wet mine waste units that may exceed the 30-year post-closure period, "…provided a Department-approved long-term monitoring and maintenance plan is in effect, and a Department-approved financial assurance mechanism is in effect for the length of term determined to be necessary by the Department." As part of any application including a wet mine waste unit, the applicant will need to propose an expected period of time post-closure that effluent water treatment will be necessary. The Department will evaluate the proposal and either accept, reject, or modify the post-closure time period for effluent water treatment. The Department believes this language provides an appropriate balance between consideration of available technologies and environmental protection. No change was made.

44. *Comment:* How can we even consider perpetual wastewater treatment as a viable option? What that really means is that the pollution will never, NEVER go away and the people of Maine, the taxpayers, will be footing the bill in perpetuity. How long is perpetuity? Guess we'll find out when and if we ever stop paying for Callahan. (104)

    Response: The Department believes that the addition of wet mine waste units within the rule does not mean that the Department will be permitting mines requiring perpetual effluent water treatment. As stated at the December 3, 2013 deliberative session with the BEP, wet mine waste units will require effluent water treatment for an indefinite period of time, which may be less than 30 years or greater than 30 years. Given the ability of wet mine waste units to prevent acid

rock drainage (reference the Global Acid Rock Drainage Guide, 2012, Section 6.6.7), the Department did not want to exclude the use of this technology. Likewise, the Department did not want to permit the use of this technology if the proper resources were not allocated to ensure its successful implementation. The Department has included language associated with wet mine waste units that may exceed the 30-year post-closure period, "…provided a Department-approved long-term monitoring and maintenance plan is in effect, and a Department-approved financial assurance mechanism is in effect for the length of term determined to be necessary by the Department." As part of any application including a wet mine waste unit, the applicant will need to propose an expected period of time post-closure that effluent water treatment will be necessary. The Department will evaluate the proposal and either accept, reject, or modify the post-closure time period for effluent water treatment. The Department believes this language provides an appropriate balance between consideration of available technologies and environmental protection. No change was made.

45. *Comment:* Why would we ever consider the proposed exemption of wet mining wastes from the ban on "perpetual treatment" of mining wastes? Current regulations require that waste management plans be designed to complete treatment within 10 years of mine closure. If mining companies want to extract valuable minerals from Maine lands, let's make sure that they have to restore the land within 10 years-- that's long enough! Please help protect our land, waters and fish. Thank you. (79)

    Response: The Department believes that the addition of wet mine waste units within the rule does not mean that the Department will be permitting mines requiring perpetual effluent water treatment. As stated at the December 3, 2013 deliberative session with the BEP, wet mine waste units will require effluent water treatment for an indefinite period of time, which may be less than 30 years or greater than 30 years. Given the ability of wet mine waste units to prevent acid rock drainage (reference the Global Acid Rock Drainage Guide, 2012, Section 6.6.7), the Department did not want to exclude the use of this technology. Likewise, the Department did not want to permit the use of this technology if the proper resources were not allocated to ensure its successful implementation. The Department has included language associated with wet mine waste units that may exceed the 30-year post-closure period, "…provided a Department-approved long-term monitoring and maintenance plan is in effect, and a Department-approved financial assurance mechanism is in effect for the length of term determined to be necessary by the Department." As part of any application including a wet mine waste unit, the applicant will need to propose an expected period of time post-closure that effluent water treatment will be necessary. The Department will evaluate the proposal and either accept, reject, or modify the post-closure time period for effluent water treatment. The Department believes this language provides an appropriate balance between consideration of available technologies and environmental protection. No change was made.

46. *Comment:* Attachment 6: Revision to Section 20(B) (2) – regarding that require all discharges to affected areas to meet applicable water quality standards as soon as practicable. Under no circumstance should a mine be permitted that has more than a five year plan, start to finish. No proposal or permit should be allowed for a mine that does not have a Best Management Plan that is internationally acceptable and capable of dealing with site specific requirements such as volcanogenic metallic deposits that are found around the state of Maine. (117)

    Response: Section 22(B)(14) of the Monitoring and Reporting Requirements requires corrective actions whenever a mine fails to meet a performance standard or when evidence of a deterioration of site conditions occurs. The types of actions that the Department can require in the corrective action include: increased monitoring to better understand the problem; a source investigation to isolate the cause of the problem or determine the impact areas; active corrective actions to stem the migration, treat the problem, and address the root cause of the problem, and modifications of the mining activities to prevent the issue and reverse the damage. All of these actions constitute corrective action which must be financially assured with sufficient funds to perform the necessary actions. In addition Section 30(B)(1) requires a Permittee to take immediate action to correct any violation. The rule was changed to clarify the monitoring and corrective action requirements when discharges occur.

    The Department recognizes that some length of time after closure may be necessary for facilities to conduct water treatment. Rather than arbitrarily set a short time-frame, the Department elected to allow up to 30 years, recognizing that it will be in the facility's best economic interest to minimize this time period. The only exception the Department has built into the proposed rule is for cases where a 'wet cover' is the most appropriate choice of technology for preventing acid rock drainage. In this narrowly defined circumstance, the proposed rule requires, "…a Department-approved long-term monitoring and maintenance plan…" to be in effect as well as, "…a Department-approved financial assurance mechanism…in effect…for the length of term determined to be necessary by the Department." With all of these measures in place, the Department believes adequate safeguards are incorporated into the rule. No change was made in relation a five year permitting criteria for approval.

47. *Comment:* Regarding wet waste management guidelines –These guidelines should be required to meet international standards. (117)

    Response: Without further reference to which international standards the commenter wishes the Department to incorporate, this request could not be evaluated. However, in developing this rule, the Department did consider guidance provided in the 2012 "Global Acid Rock Drainage Guide", a document prepared by an international group of scientists and engineers. This document is intended to be a state-of-practice summary of the best practices and technology for prevention of acid rock drainage. No change was made.

48. *Comment:* I have strong reservations against proposed changes to mining operations regarding groundwater and wetlands. (118)

    Response:

49. *Comment:* I have strong reservations against loose language such as meeting water quality standards "as soon as practical". This smacks of regulation changes written by industry. (118)

    Response: Section 22(B)(14) of the Monitoring and Reporting Requirements requires corrective actions whenever a mine fails to meet a performance standard or when evidence of a deterioration of site conditions occurs. The types of actions that the Department can require in the corrective action include: increased monitoring to better understand the problem; a source investigation to isolate the cause of the problem or determine the impact areas; active corrective actions to stem the migration, treat the problem, and address the root cause of the problem, and modifications of the mining activities to prevent the issue and reverse the damage. All of these actions constitute corrective action which must be financially assured with sufficient funds to perform the necessary actions. In addition Section 30(B)(1) requires a Permittee to take immediate action to correct any violation. The rule was changed to clarify the monitoring and corrective action requirements when discharges occur.

50. *Comment:* To say "any treatment necessary for wet waste management units in excess of the 30-year post-closure period shall not be considered perpetual treatment" is frightening. This clause imperils water quality and endangers everyone who would live near a mine. Any polluted discharge is dangerous. This would allow more pollution of surrounding areas than I believe is reasonable or even conscionable. (127)

    Response: The Department believes that the addition of wet mine waste units within the rule does not mean that the Department will be permitting mines requiring perpetual effluent water treatment. As stated at the December 3, 2013 deliberative session with the BEP, wet mine waste units will require effluent water treatment for an indefinite period of time, which may be less than 30 years or greater than 30 years. Given the ability of wet mine waste units to prevent acid rock drainage (reference the Global Acid Rock Drainage Guide, 2012, Section 6.6.7), the Department did not want to exclude the use of this technology. Likewise, the Department did not want to permit the use of this technology if the proper resources were not allocated to ensure its successful implementation. The Department has included language associated with wet mine waste units that may exceed the 30-year post-closure period, "…provided a Department-approved long-term monitoring and maintenance plan is in effect, and a Department-approved financial assurance mechanism is in effect for the length of term determined to be necessary by the Department." As part of any application

including a wet mine waste unit, the applicant will need to propose an expected period of time post-closure that effluent water treatment will be necessary. The Department will evaluate the proposal and either accept, reject, or modify the post-closure time period for effluent water treatment. The Department believes this language provides an appropriate balance between consideration of available technologies and environmental protection. No change was made.

51. *Comment:* If mining a site like Bald Mountain goes forward, monitoring wells may indeed observe the spreading contamination but will be unable to stop it. (128)

    Response: Section 22(B)(14) of the Monitoring and Reporting Requirements requires corrective actions whenever a mine fails to meet a performance standard or when evidence of a deterioration of site conditions occurs. The types of actions that the Department can require in the corrective action include: increased monitoring to better understand the problem; a source investigation to isolate the cause of the problem or determine the impact areas; active corrective actions to stem the migration, treat the problem, and address the root cause of the problem, and modifications of the mining activities to prevent the issue and reverse the damage. All of these actions constitute corrective action which must be financially assured with sufficient funds to perform the necessary actions. In addition the Permittee must operate the mine in a manner that minimizes acid generation, metal leaching, and acid rock drainage within the mining area. See Section 20 (A) (2). The rule was changed to clarify the monitoring and corrective action requirements when discharges occur.

52. *Comment:* Your setbacks will do nothing to prevent the pollution of whole watersheds as contamination spreads into streams and rivers which don't recognize 1/4 mile setbacks or even 50 mile setbacks. (128)

    Response: The Department's proposed setbacks are intended to mitigate surface mining's effects on unusual natural areas, historic sites, scenic character and wildlife and fisheries. Contamination of any surface waters and groundwater outside the mining areas is prohibited by statute at 38 M.R.S. § 490-OO(4) and this rule. It should also be noted that the Department's proposal provides that the Department may require a greater setback if submission materials or other information indicate an increased setback is necessary to protect the environment and public health and safety. No change was made as a result of this comment.

53. *Comment:* Your duration of monitoring for 30 years has no relevance whatsoever because you have not required certainty in attaining naturally self-sustaining, non polluting drainage in a much shorter time frame (5 years). (128)

    Response: The rule revisions posted for public comment did not propose any changes to the 30-year post-closure period except for wet waste management units. Therefore this comment is not relevant to this posting. However the Department notes that the rule establishes financial assurance mechanisms that

assure that money will be available to monitor and maintain a mine site through post-closure until such time that the Department determines there is no further risk to the environment. As stated in the rule, the goal during closure and post-closure is to minimize the potential for acid rock drainage, to establish a system that needs minimum maintenance, restores the site to pre-mining conditions (to the extent practicable and feasible), and, "…that reclamation is effective and complete and self-sustaining…". The Department believes that this language addresses the concerns expressed by the commenter. No change was made.

54. *Comment:* Your exception (more than 30 years) for wet waste management units to meet water quality standards without treatment increases the risk that Maine's taxpayers will eventually pay those possibly astronomical costs. Wet waste could be most of what's left on a mining site. (128)

    Response: The Department has included language associated with wet mine waste units that may exceed the 30-year post-closure period, "…provided a Department-approved long-term monitoring and maintenance plan is in effect, and a Department-approved financial assurance mechanism is in effect for the length of term determined to be necessary by the Department." The Department believes this language provides an appropriate balance between consideration of available technologies and environmental protection. No change was made.

55. *Comment:* I am writing in opposition to the proposed mining rules. I ask the BEP to require clean-up of mining wastes within 10 years of mine closure. Please strengthen the proposed rules to protect Maine's river, lakes and streams. (136)

    Response: The rule revisions posted for public comment did not propose any changes to the 30-year post-closure period except for wet waste management units. Therefore this comment is not relevant to this posting. However the Department notes that the rule establishes financial assurance mechanisms that assure that money will be available to monitor and maintain a mine site through post-closure until such time that the Department determines there is no further risk to the environment. As stated in the rule, the goal during closure and post-closure is to minimize the potential for acid rock drainage, to establish a system that needs minimum maintenance, restores the site to pre-mining conditions (to the extent practicable and feasible), and, "…that reclamation is effective and complete and self-sustaining…". The Department believes that this language addresses the concerns expressed by the commenter. No change was made.

56. *Comment:* I am appalled that the revised rules do not require that waste management plans be designed to complete treatment within a defined period -- perhaps 10 years -- of mine closure. And certainly, approval of a proposed mining operation of any kind should be predicated on an assurance -- before the commencement of operations and throughout the duration of active mining -- through bonding or an irrevocable trust that adequate funds will exist at the cessation of operations to complete treatment of waste and restore the landscape and habitat to a natural state so that cost of clean up

and security of a closed operation does not fall to the taxpayers regardless of the future status in law of the mine operator as an accountable entity. (137)

Response: The Department believes that the addition of wet mine waste units within the rule does not mean that the Department will be permitting mines requiring perpetual effluent water treatment. As stated at the December 3, 2013 deliberative session with the BEP, wet mine waste units will require effluent water treatment for an indefinite period of time, which may be less than 30 years or greater than 30 years. Given the ability of wet mine waste units to prevent acid rock drainage (reference the Global Acid Rock Drainage Guide, 2012, Section 6.6.7), the Department did not want to exclude the use of this technology. Likewise, the Department did not want to permit the use of this technology if the proper resources were not allocated to ensure its successful implementation. The Department has included language associated with wet mine waste units that may exceed the 30-year post-closure period, "…provided a Department-approved long-term monitoring and maintenance plan is in effect, and a Department-approved financial assurance mechanism is in effect for the length of term determined to be necessary by the Department." As part of any application including a wet mine waste unit, the applicant will need to propose an expected period of time post-closure that effluent water treatment will be necessary. The Department will evaluate the proposal and either accept, reject, or modify the post-closure time period for effluent water treatment. The Department believes this language provides an appropriate balance between consideration of available technologies and environmental protection

The rule was changed to require full funding before removal, exposure or processing of overburden, waste rock, or ore. No change was made.

57. *Comment:* Changing the 30-year deadline for wet waste cleanup to indefinite 20-year extensions will result in lengthily cleanups that will cause lasting damage to the surrounding ecosystems. These changes give mining companies no incentive to responsibly and quickly clean up their messes. (142)

Response: The Department believes that the addition of wet mine waste units within the rule does not mean that the Department will be permitting mines requiring perpetual effluent water treatment. As stated at the December 3, 2013 deliberative session with the BEP, wet mine waste units will require effluent water treatment for an indefinite period of time, which may be less than 30 years or greater than 30 years. Given the ability of wet mine waste units to prevent acid rock drainage (reference the Global Acid Rock Drainage Guide, 2012, Section 6.6.7), the Department did not want to exclude the use of this technology. Likewise, the Department did not want to permit the use of this technology if the proper resources were not allocated to ensure its successful implementation. The Department has included language associated with wet mine waste units that may exceed the 30-year post-closure period, "…provided a Department-approved long-term monitoring and maintenance plan is in effect, and a Department-

approved financial assurance mechanism is in effect for the length of term determined to be necessary by the Department." As part of any application including a wet mine waste unit, the applicant will need to propose an expected period of time post-closure that effluent water treatment will be necessary. The Department will evaluate the proposal and either accept, reject, or modify the post-closure time period for effluent water treatment. The Department believes this language provides an appropriate balance between consideration of available technologies and environmental protection. The Department did not make any change to automatically extend the 30-year post-closure period in 20-year increments as part of these changes. The ability to extend the post-closure period in up to 20-year increments is built into the framework law, and was included in the original draft of the rule. No change was made.

58. *Comment:* I am concerned with the fact the DEP is considering allowing rules which will allow ANY storage for contaminated waste materials from mining. If the mining is going to cause a need for a perpetual contaminated wet waste storage why in the name of god would the mining being allowed in the first place? The only benefit for mining is to the companies who have enough money to have the equipment to mine. What benefit is there to the environment or any of the people and wildlife who will be affected by the contaminated water and destroyed land? We certainly won't see a penny of what they dig out of the ground! The job of the DEP and BEP is to protect the environment not cater to wealthy special interests. Do any of you really believe that this mining company or any other company that will now come in to the state for fracking or other ore mining gives one ounce of concern for Maine's beauty or the pollution of our state? I can guarantee not! That is your job. Please do your jobs. Do not allow the destruction to begin with and certainly stop trying to make it easier for the special interests to destroy our state. I have lived out west and have seen what mining looks like. I have witnessed the pollution that has been left for the public to clean up. Do we want to destroy our state and be stuck with the bill? Certainly these companies need to have CASH in the trust fund for 30 years or "perpetually" if that is the foolishness this DEP is going to allow. (144)

Response: The Department believes that the addition of wet mine waste units within the rule does not mean that the Department will be permitting mines requiring perpetual effluent water treatment. As stated at the December 3, 2013 deliberative session with the BEP, wet mine waste units will require effluent water treatment for an indefinite period of time, which may be less than 30 years or greater than 30 years. Given the ability of wet mine waste units to prevent acid rock drainage (reference the Global Acid Rock Drainage Guide, 2012, Section 6.6.7), the Department did not want to exclude the use of this technology. Likewise, the Department did not want to permit the use of this technology if the proper resources were not allocated to ensure its successful implementation. The Department has included language associated with wet mine waste units that may exceed the 30-year post-closure period, "…provided a Department-approved long-term monitoring and maintenance plan is in effect, and a Department-approved financial assurance mechanism is in effect for the length of term

determined to be necessary by the Department." As part of any application including a wet mine waste unit, the applicant will need to propose an expected period of time post-closure that effluent water treatment will be necessary. The Department will evaluate the proposal and either accept, reject, or modify the post-closure time period for effluent water treatment. The Department believes this language provides an appropriate balance between consideration of available technologies and environmental protection.

In all likelihood, mine waste will remain on the site in containment structures, as this is a typical mining practice. Removing the mine waste from the site as the commenter suggests does not address the need to dispose of the mine waste somewhere. No change was made.

Regarding the need to have financial assurance for as long as needed, the rule includes the provision that the Permittee must maintain financial assurance until the Department determines that all reclamation, closure, post closure, maintenance and monitoring, and corrective actions have been completed. This evaluation by the Department would also include the rule provision for the Department to determine if the mining operation and any associated waste material could create an unreasonable threat to public health and safety or the environment.

59. *Comment:* I'm writing to let you know that strong mining rules - including strict clean-up (so as not to require "perpetual treatment") - are essential. Final rules in the matter of Irving's current proposal should require mining waste clean-up within ten years of mine closure. The current rules (proposed), allowing wet mining waste to be stored on-site and treated forever rather than being cleaned up are not acceptable if we are to best protect Maine's waters. (145)

Response: The Department believes that the addition of wet mine waste units within the rule does not mean that the Department will be permitting mines requiring perpetual effluent water treatment. As stated at the December 3, 2013 deliberative session with the BEP, wet mine waste units will require effluent water treatment for an indefinite period of time, which may be less than 30 years or greater than 30 years. Given the ability of wet mine waste units to prevent acid rock drainage (reference the Global Acid Rock Drainage Guide, 2012, Section 6.6.7), the Department did not want to exclude the use of this technology. Likewise, the Department did not want to permit the use of this technology if the proper resources were not allocated to ensure its successful implementation. The Department has included language associated with wet mine waste units that may exceed the 30-year post-closure period, "…provided a Department-approved long-term monitoring and maintenance plan is in effect, and a Department-approved financial assurance mechanism is in effect for the length of term determined to be necessary by the Department." As part of any application including a wet mine waste unit, the applicant will need to propose an expected period of time post-closure that effluent water treatment will be necessary. The

Department will evaluate the proposal and either accept, reject, or modify the post-closure time period for effluent water treatment. The Department believes this language provides an appropriate balance between consideration of available technologies and environmental protection. No change was made.

60. *Comment:* Treatment requirements in excess of 30 years should be considered perpetual, and should not be allowed. All mining should be of a kind whose potential pollution and contamination could certainly be all cleaned up within 30 years. (148)

    Response: The Department believes that the addition of wet mine waste units within the rule does not mean that the Department will be permitting mines requiring perpetual effluent water treatment. As stated at the December 3, 2013 deliberative session with the BEP, wet mine waste units will require effluent water treatment for an indefinite period of time, which may be less than 30 years or greater than 30 years. Given the ability of wet mine waste units to prevent acid rock drainage (reference the Global Acid Rock Drainage Guide, 2012, Section 6.6.7), the Department did not want to exclude the use of this technology. Likewise, the Department did not want to permit the use of this technology if the proper resources were not allocated to ensure its successful implementation. The Department has included language associated with wet mine waste units that may exceed the 30-year post-closure period, "…provided a Department-approved long-term monitoring and maintenance plan is in effect, and a Department-approved financial assurance mechanism is in effect for the length of term determined to be necessary by the Department." As part of any application including a wet mine waste unit, the applicant will need to propose an expected period of time post-closure that effluent water treatment will be necessary. The Department will evaluate the proposal and either accept, reject, or modify the post-closure time period for effluent water treatment. The Department believes this language provides an appropriate balance between consideration of available technologies and environmental protection. No change was made.

61. *Comment:* Maine must adopt a clear prohibition on mining practices that plan for perpetual or long-term treatment of waste water after mine closure. Proposed changes that exempt "wet waste management units" from the prohibition on perpetual treatment make it much more likely that most Maine mines will include waste management techniques that require long term treatment. The Board should include a clear prohibition on perpetual or long-term post-closure water treatment, and the deadline for achieving this condition should be as short as possible. At the public hearing and in public comments, there was considerable discussion about "perpetual treatment"—whether mines should be permitted if they could not restore a stable, self-sustaining state where treatment of discharge water is no longer required. The original draft of the rules proposed to limit the treatment period to no more than 30 years. A majority of comments received by the BEP urged a shorter timeline of 10 years. This debate—10 years vs. the proposed 30 years for post-closure water treatment—was perhaps the issue most commented upon by the public and most discussed by Board members. Although there was a diversity of opinion regarding the

timeline for post-closure treatment, there was near unanimity that some limit was not only desirable, but necessary. (There was one commenter who urged the BEP to allow for perpetual treatment.) In the revised 12/3 draft, the DEP staff have proposed several changes that will exempt many of the most risky waste management techniques from any time limit. This will incentivize mine operators to adopt riskier "wet" management techniques, if only for the purpose of avoiding the deadlines on water treatment that are now attached only to dry waste management. Even if mine operators do not act on this unintended incentive, virtually every mine will have some waste units that require wet management—and therefore virtually every mine will be exempt from the requirement to complete active water treatment within a defined period. This exemption will certainly apply to tailings ponds, wet storage of waste rock, and flooded mine shafts and pits. These are among the most common sources of Acid Mine Drainage and other surface and ground water pollution at existing and historic mine sites. The drafting changes now create a rule that defines "perpetual treatment" as requiring water treatment beyond 30 years past mine closure, but then exempts virtually all mine activities that might require water treatment from this standard. (By definition, "dry" waste management units are unlikely to need water treatment.) This problem is made more significant by the fact that the term "wet waste management unit" is not defined. Arguably, in a climate as wet as Maine's, it includes most if not all mine waste. Even if the Board disagrees with us (and the majority of citizens who commented on the rules) and believes that 30 years is the appropriate timeline, the changes in the 12/3 draft to sections 9 (D)(12), 20 (G)(2) and 24 (B)(5) create an enormous loophole in any expectation that mines will establish a self-maintaining site that does not pollute water at the close of mining. We urge the BEP to (1) include in the rules a clear statement that perpetual care (i.e., water treatment past a short period after mine closure) is not allowed: (2)to adopt a strict time limit for all post-mine closure water treatment; and (3) to apply this limit to all mine activities and wastes that may generate acid mine drainage, leach heavy metals or otherwise contaminate surface or groundwater. We again suggest that 30 years post-closure is far too long to allow for water treatment. Finally, we note that other states that have recently revised their mining rules—notably Michigan—have included a strong standard banning perpetual care, and mining companies have been able to obtain permits with mine closure plans that meet this standard. (150)

Response: The Department is proposing to define "wet mine waste units" as, "Wet mine waste unit means a mine waste unit that uses water as a cover to minimize oxygen advection and diffusion to Group A waste in a manner that effectively inhibits formation of acid rock drainage." By using this definition, the Department's intent is to make it clear that wet waste mine units are distinct from the examples listed by the commenter, and that these units utilize water covers for the purpose of minimizing oxygen advection and diffusion to inhibit formation of acid rock drainage.

The Department has established a 30-year post-closure period as the acceptable time period for monitoring and maintenance activities, including water treatment. The proposed rule has performance standards directed at minimizing

formation of acid rock drainage and metals leaching, as well as minimizing the need for perpetual treatment. In addition, the applicant is required to demonstrate that the 'Environmental Protection, Reclamation, and Closure Plan' submitted as part of the application will, "…minimize and mitigate actual and potential adverse impacts to natural resources, the environment, and public health and safety" during all phases of the life of mine, including closure and post-closure. This same plan also requires the applicant to show how contemporaneous reclamation is incorporated into the mine plan.

The Department recognizes that some length of time after closure may be necessary for facilities to conduct water treatment. Rather than arbitrarily set a short time-frame, the Department elected to allow up to 30 years, recognizing that it will be in the facility's best economic interest to minimize this time period. The Department believes that the addition of wet mine waste units within the rule does not mean that the Department will be permitting mines requiring perpetual effluent water treatment. The only exception the Department has built into the proposed rule is for cases where a 'wet cover' is the most appropriate choice of technology for preventing acid rock drainage. In this narrowly defined circumstance, the proposed rule requires, "…a Department-approved long-term monitoring and maintenance plan…" to be in effect as well as, "…a Department-approved financial assurance mechanism…in effect…for the length of term determined to be necessary by the Department." As part of any application including a wet mine waste unit, the applicant will need to propose an expected period of time post-closure that effluent water treatment will be necessary. The Department will evaluate the proposal and either accept, reject, or modify the post-closure time period for effluent water treatment. With all of these measures in place, the Department believes adequate safeguards are incorporated into the rule. No change was made.

62. *Comment:* The Board has created a loophole that will allow perpetual wastewater treatment. This significantly increases the likelihood that contaminated water will escape the site. (151)

Response: The Department believes that the addition of wet mine waste units within the rule does not mean that the Department will be permitting mines requiring perpetual effluent water treatment. As stated at the December 3, 2013 deliberative session with the BEP, wet mine waste units will require effluent water treatment for an indefinite period of time, which may be less than 30 years or greater than 30 years. Given the ability of wet mine waste units to prevent acid rock drainage (reference the Global Acid Rock Drainage Guide, 2012, Section 6.6.7), the Department did not want to exclude the use of this technology. Likewise, the Department did not want to permit the use of this technology if the proper resources were not allocated to ensure its successful implementation. The Department has included language associated with wet mine waste units that may exceed the 30-year post-closure period, "…provided a Department-approved long-term monitoring and maintenance plan is in effect, and a Department-

approved financial assurance mechanism is in effect for the length of term determined to be necessary by the Department." As part of any application including a wet mine waste unit, the applicant will need to propose an expected period of time post-closure that effluent water treatment will be necessary. The Department will evaluate the proposal and either accept, reject, or modify the post-closure time period for effluent water treatment. The Department believes this language provides an appropriate balance between consideration of available technologies and environmental protection. No change was made.

63. *Comment:* The commenter objects to the rules permitting long-term treatment of wet waste management units, even in perpetuity, which puts ground and surface waters, habitats, and public safety at enormous risk. (154)

    Response: The Department believes that the addition of wet mine waste units within the rule does not mean that the Department will be permitting mines requiring perpetual effluent water treatment. As stated at the December 3, 2013 deliberative session with the Board, wet mine waste units will require effluent water treatment for an indefinite period of time, which may be less than 30 years or greater than 30 years. Given the ability of wet mine waste units to prevent acid rock drainage (reference the Global Acid Rock Drainage Guide, 2012, Section 6.6.7), the Department did not want to exclude the use of this technology. Likewise, the Department did not want to permit the use of this technology if the proper resources were not allocated to ensure its successful implementation. The Department has included language associated with wet mine waste units that may exceed the 30-year post-closure period, "…provided a Department-approved long-term monitoring and maintenance plan is in effect, and a Department-approved financial assurance mechanism is in effect for the length of term determined to be necessary by the Department." As part of any application including a wet mine waste unit, the applicant will need to propose an expected period of time post-closure that effluent water treatment will be necessary. The Department will evaluate the proposal and either accept, reject, or modify the post-closure time period for effluent water treatment. The Department believes this language provides an appropriate balance between consideration of available technologies and environmental protection. No change was made.

64. *Comment:* The commenter objects to perpetual treatment of waste water, limiting corporate responsibility for treatment of the waste water held in tailing ponds, euphemistically named "wet treatment". (174)

    Response: The Department believes that the addition of wet mine waste units within the rule does not mean that the Department will be permitting mines requiring perpetual effluent water treatment. As stated at the December 3, 2013 deliberative session with the Board, wet mine waste units will require effluent water treatment for an indefinite period of time, which may be less than 30 years or greater than 30 years. Given the ability of wet mine waste units to prevent acid rock drainage (reference the Global Acid Rock Drainage Guide, 2012, Section

6.6.7), the Department did not want to exclude the use of this technology. Likewise, the Department did not want to permit the use of this technology if the proper resources were not allocated to ensure its successful implementation. The Department has included language associated with wet mine waste units that may exceed the 30-year post-closure period, "…provided a Department-approved long-term monitoring and maintenance plan is in effect, and a Department-approved financial assurance mechanism is in effect for the length of term determined to be necessary by the Department." As part of any application including a wet mine waste unit, the applicant will need to propose an expected period of time post-closure that effluent water treatment will be necessary. The Department will evaluate the proposal and either accept, reject, or modify the post-closure time period for effluent water treatment. The Department believes this language provides an appropriate balance between consideration of available technologies and environmental protection. No change was made.

65. *Comment:* The new language added to Section 9(D)(12) creates an obvious loophole around the issue of perpetual treatment. Throughout this rulemaking process, the Board has received public comments and testimony directly requesting language that eliminates the potential for a mining development to result in "perpetual treatment". The BEP discussed and agreed upon a 30-year post closure period for treatment of mining wastes. While AMC originally supported a 10-year post closure period, we were encouraged by the direction that the BEP appeared to be moving towards in explicitly preventing perpetual treatment of mining wastes. We completely oppose the new language that allows "any treatment necessary for wet waste management units" to not be considered or defined as perpetual treatment. As Board Member Lessard pointed out, this additional language is disingenuous and ignores the clear message from the state that perpetual treatment is unacceptable. AMC believes that mining development should not allow perpetual treatment of any type of waste. Allowing perpetual treatment puts Maine's valuable water resources at risk. (155)

Response: The Department believes that the addition of wet mine waste units within the rule does not mean that the Department will be permitting mines requiring perpetual effluent water treatment. As stated at the December 3, 2013 deliberative session with the BEP, wet mine waste units will require effluent water treatment for an indefinite period of time, which may be less than 30 years or greater than 30 years. Given the ability of wet mine waste units to prevent acid rock drainage (reference the Global Acid Rock Drainage Guide, 2012, Section 6.6.7), the Department did not want to exclude the use of this technology. Likewise, the Department did not want to permit the use of this technology if the proper resources were not allocated to ensure its successful implementation. The Department has included language associated with wet mine waste units that may exceed the 30-year post-closure period, "…provided a Department-approved long-term monitoring and maintenance plan is in effect, and a Department-approved financial assurance mechanism is in effect for the length of term determined to be necessary by the Department." As part of any application including a wet mine waste unit, the applicant will need to propose an expected

period of time post-closure that effluent water treatment will be necessary. The Department will evaluate the proposal and either accept, reject, or modify the post-closure time period for effluent water treatment. The Department believes this language provides an appropriate balance between consideration of available technologies and environmental protection. No change was made.

66. *Comment:* I object to the provision to redefine duration of treatment of wet waste: For the purpose of this rule, any treatment necessary for wet waste management units in excess of the 30-year post-closure period shall not be considered perpetual treatment. And: ~~.~~ Except for wet waste management units, the collection, treatment and disposal methods must be designed to ensure that discharges to affected areas must meet water quality standards without requiring treatment as soon as practicable, but in no case greater than 30 years post-closure. The Permittee must design mine waste units ~~storage facilities~~ capable of operating without such treatment after that time. This provision appears to allow "wet cover" waste management techniques to go on indefinitely, while legally defining them as "not perpetual" treatment. Environmental damage from overtopping or leaching of tailings ponds is inevitable and will contaminate surface and groundwater beyond the mining area. These ponds should be de-toxified, drained, treated and closed immediately following the cessation of mining activities. (176)

Response: The Department believes that the addition of wet mine waste units within the rule does not mean that the Department will be permitting mines requiring perpetual effluent water treatment. As stated at the December 3, 2013 deliberative session with the BEP, wet mine waste units will require effluent water treatment for an indefinite period of time, which may be less than 30 years or greater than 30 years. Given the ability of wet mine waste units to prevent acid rock drainage (reference the Global Acid Rock Drainage Guide, 2012, Section 6.6.7), the Department did not want to exclude the use of this technology. Likewise, the Department did not want to permit the use of this technology if the proper resources were not allocated to ensure its successful implementation. The Department has included language associated with wet mine waste units that may exceed the 30-year post-closure period, "…provided a Department-approved long-term monitoring and maintenance plan is in effect, and a Department-approved financial assurance mechanism is in effect for the length of term determined to be necessary by the Department." As part of any application including a wet mine waste unit, the applicant will need to propose an expected period of time post-closure that effluent water treatment will be necessary. The Department will evaluate the proposal and either accept, reject, or modify the post-closure time period for effluent water treatment. The Department believes this language provides an appropriate balance between consideration of available technologies and environmental protection. No change was made.

67. *Comment:* Furthermore, while this draft states mining companies are responsible for cleanup, it gives mining companies loopholes to avoid clean up: they can indefinitely extend "wet waste" treatment in twenty year increments and no longer need to

demonstrate financial assurance before mining begins. Toxins released from acid mine drainage at Bald Mountain would affect some of the last Populations of native brook trout as well as people. Aroostook County benefits from the tourism and fishing industry that the trout attract and, if their integrity were compromised, would lose a historic source of long---term, sustainable income.

Response: The Department believes that the addition of wet mine waste units within the rule does not mean that the Department will be permitting mines requiring perpetual effluent water treatment. As stated at the December 3, 2013 deliberative session with the BEP, wet mine waste units will require effluent water treatment for an indefinite period of time, which may be less than 30 years or greater than 30 years. Given the ability of wet mine waste units to prevent acid rock drainage (reference the Global Acid Rock Drainage Guide, 2012, Section 6.6.7), the Department did not want to exclude the use of this technology. Likewise, the Department did not want to permit the use of this technology if the proper resources were not allocated to ensure its successful implementation. The Department has included language associated with wet mine waste units that may exceed the 30-year post-closure period, "…provided a Department-approved long-term monitoring and maintenance plan is in effect, and a Department-approved financial assurance mechanism is in effect for the length of term determined to be necessary by the Department." As part of any application including a wet mine waste unit, the applicant will need to propose an expected period of time post-closure that effluent water treatment will be necessary. The Department will evaluate the proposal and either accept, reject, or modify the post-closure time period for effluent water treatment. The Department believes this language provides an appropriate balance between consideration of available technologies and environmental protection. The Department did not make any change to automatically extend the 30-year post-closure period in 20-year increments as part of these changes. The ability to extend the post-closure period in up to 20-year increments is built into the framework law, and was included in the original draft of the rule. No change was made.

68. *Comment:* One issue of importance is what number of years ought to be used in the permitting process as the maximum time horizon for clean-up post closure [§(9)(D)(12)]. The current draft seems to suggest that 30 years might be acceptable. Any time horizon longer than 15 years would seem to run the risk of leaving the citizen taxpayers of Maine on the hook for clean-up costs. (179)

Response: The rule revisions posted for public comment did not propose any changes to the 30-year post-closure period except for wet waste management units. Therefore this comment is not relevant to this posting. However the Department notes that the rule establishes financial assurance mechanisms that assure that money will be available to monitor and maintain a mine site through post-closure until such time that the Department determines there is no further risk to the environment. No change was made.

69. *Comment:* Adding indefinite 20 year increments for maintaining waste water ponds defies the realities of how capable our society is of maintaining anything continuously for periods of 50 or 100 years. We see all the time the effects of shortsighted failure to maintain for example bridges properly over time. An open pit on a mountain is very likely to be ignored when severe financial crisis, a depression or shortsightedness and cost cutting occurs anytime over the upcoming generations. (184)

    Response: The Department believes that the addition of wet mine waste units within the rule does not mean that the Department will be permitting mines requiring perpetual effluent water treatment. As stated at the December 3, 2013 deliberative session with the BEP, wet mine waste units will require effluent water treatment for an indefinite period of time, which may be less than 30 years or greater than 30 years. Given the ability of wet mine waste units to prevent acid rock drainage (reference the Global Acid Rock Drainage Guide, 2012, Section 6.6.7), the Department did not want to exclude the use of this technology. Likewise, the Department did not want to permit the use of this technology if the proper resources were not allocated to ensure its successful implementation. The Department has included language associated with wet mine waste units that may exceed the 30-year post-closure period, "…provided a Department-approved long-term monitoring and maintenance plan is in effect, and a Department-approved financial assurance mechanism is in effect for the length of term determined to be necessary by the Department." As part of any application including a wet mine waste unit, the applicant will need to propose an expected period of time post-closure that effluent water treatment will be necessary. The Department will evaluate the proposal and either accept, reject, or modify the post-closure time period for effluent water treatment. The Department believes this language provides an appropriate balance between consideration of available technologies and environmental protection. The Department did not make any change to automatically extend the 30-year post-closure period in 20-year increments as part of these changes. The ability to extend the post-closure period in up to 20-year increments is built into the framework law, and was included in the original draft of the rule. No change was made.

70. *Comment:* The change to 9(D)(12**)** is a reasonable change. (177)

    Response: The Department acknowledges the comment. No change was made based on this comment.

71. As I see it, these revisions would provide the mining industry further relaxations to the rules gutting the environmental requirements. Just one example is the 30 year post closure remediation rule. It gives the mining entity 30 years to return the site to pre-mining conditions with the exception that "wet cover" waste management techniques can go on indefinitely. 30 years to return the site to pre-mining conditions for one thing is far too long, and "wet cover" is a just a slick way of saying waste water ponds. It appears that these relaxed rules now want to allow waste water ponds to go

on indefinitely. This is a huge environmental mistake; a horrible, environmentally destructive mistake. In essence it allows the mining companies to create a huge sacrifice zone that will pollute surrounding areas and kill wildlife indefinitely. I strongly suggest that there be NO revision or relaxation of the rules. I strongly oppose these terrible rules. The protections for the environment should and must be strengthened, not relaxed. (31)

Response: The Department believes that the addition of wet mine waste units within the rule does not mean that the Department will be permitting mines requiring perpetual effluent water treatment. As stated at the December 3, 2013 deliberative session with the BEP, wet mine waste units will require effluent water treatment for an indefinite period of time, which may be less than 30 years or greater than 30 years. Given the ability of wet mine waste units to prevent acid rock drainage (reference the Global Acid Rock Drainage Guide, 2012, Section 6.6.7), the Department did not want to exclude the use of this technology. Likewise, the Department did not want to permit the use of this technology if the proper resources were not allocated to ensure its successful implementation. The Department has included language associated with wet mine waste units that may exceed the 30-year post-closure period, "…provided a Department-approved long-term monitoring and maintenance plan is in effect, and a Department-approved financial assurance mechanism is in effect for the length of term determined to be necessary by the Department." As part of any application including a wet mine waste unit, the applicant will need to propose an expected period of time post-closure that effluent water treatment will be necessary. The Department will evaluate the proposal and either accept, reject, or modify the post-closure time period for effluent water treatment. The Department believes this language provides an appropriate balance between consideration of available technologies and environmental protection. No change was made.

SUBCHAPTER 4: FINANCIAL ASSURANCE AND INSURANCE
Section 17. Financial Assurance and Insurance Requirements

72. *Comment:* The commenter points out that not requiring mining companies to put all the funds necessary to clean up the pollution that they release up front in a reliable trust fund means that Maine tax payers will almost certainly be paying future mining cleanup costs for many years to come. Given the current state of these rules, Maine's water resources are exposed to significant threat from mine waste pollution. (1)

Response: In the mining rule the use of either a trust fund or a letter of credit with a standby trust fund was viewed as a good balance between those commenters who wanted more options for the mining companies and those commenters who wanted the full cost of the mine to be financially covered only in a trust fund before mining began. The option for including a letter of credit for assuring for mining sites with Group A and B was retained.

The rule was however changed to require full funding before any removal, exposure, or processing of overburden, waste rock or ore.

73. *Comment:* The proposed rule changes also do not protect Maine taxpayers. The public should never have to pay to clean up a mining company's pollution. Please require that mining companies put the full amount of their financial assurance in a secure trust fund in cash or cash equivalents before they begin construction. Also, a qualified third party auditor should verify that the amount of financial assurance is adequate to cover any clean up scenario if a mining company goes bankrupt. . (2, 3, 6, 8, 10, 11, 12, 13, 14, 15, 17, 23, 24, 25, 26, 27, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53 ,54, 55, 56, 57, 59, 60, 73, 75, 76, 77, 82, 83, 85, 94, 101, 112, 113, 114, 120, 123, 126, 135, 146, 147, 160, 173, 175, 180, 181)

    Response: The Department agrees that the Maine taxpayers should not have to clean up a mining company's pollution. There is more than one way to ensure that this occurs however. In the mining rule the use of either a trust fund or a letter of credit was viewed as a good balance between those commenters who wanted more options for the mining companies to begin operations and those commenters who wanted the full cost of the mine to be financially covered only in a cash funded trust fund before mining began. The option for the use of a letter of credit for assuring for mining sites with Group A and B was retained.

    While the Department believes that this comment relates to the Group A or B waste sites, the full range of financial assurance options is discussed in this paragraph. The trust fund for sites with Group A or B waste is funded with cash, negotiable bonds, negotiable certificates of deposits or irrevocable letters of credit. For sites with only Group C waste, the options for assuring are a broader mix with surety bonds, trust funds, or irrevocable letters of credits. The trust fund for Group C waste sites is in turn secured with funds from an escrow account, cash, negotiable bonds or negotiable certificates of deposit. All of the assets used to secure any trust fund become part of the trust. Whenever a letter of credit is utilized a standby trust or an existing trust must be utilized. Both the trust fund and letter of credit must be based upon the model hazardous waste instruments. These models provide details on how they are to be operated and provide protections to the beneficiary that the funds will be available.

    The rule was changed to require full funding before any removal, exposure, or processing of overburden, waste rock or ore.

    The rule requires that all terms and conditions of financial assurances must be analyzed by individuals with documented experience in material handling and construction, mining costs, and financial analysis. The Department expects to hire financial expertise to assist in these reviews including assistance with mining cost estimates.

74. *Comment:* The open pit mining laws in Maine need to be strengthened not weakened… and there needs to be upfront money and insurance put up by the

companies involved that would cover all costs of clean up should there be accidents or left over wastelands. In essence, they need to insure themselves… not the taxpayer insuring them. I am tired of having taxpayer money cleaning up after corporations after they made their millions while thousands of children are subjected to a lowered quality of education because the money has run out. Our priorities are all wrong. (32)

Response: The Department agrees that the Maine taxpayers should not have to clean up a mining company's pollution. The rule was changed to require full funding for the mine before removal, extraction or processing of overburden, waste rock or ore. In addition the rule also requires that the mining company retain liability insurance for among other things accidents.

75. *Comment:* For a time, I lived in Colorado, and fished there with my brothers. The Colorado gold rush was largely from 1859 to 1865. There are a number of beautiful mountain trout streams that I saw which had mine tailings near their banks. You can drive today along these streams for the first 10 or 15 miles below the tailings, and the streams are sterile, with no aquatic life and no fish, though to all appearances, they look inviting. Those mine tailings are from nearly 150 years ago. Extractive mining is by its nature short term, but the consequences are long term. Few companies in the past have survived to take responsibility for the clean-up. I think a company which wants to appropriate a public benefit, like the surrounding watershed, should post the money to cure the effects of what it proposes to do. (58)

Response: The Department agrees that the effects of mining have often been long term. The rule therefore requires the mining company to determine the risk from the facility by performing an Environmental Impact Assessment. Part of this assessment, is to determine what resources are nearby and what actions could impact those resources. One of the requirements of this assessment is the determination of any pathways from the mining area to adjacent groundwater and surface water resources. The cost for potential corrective action for any established pathways is required to be included in the amount of the financial assurance. The rule was also changed to require full funding for the mine before removal, extraction or processing of overburden, waste rock or ore.

76. *Comment:* I also would suggest that the regulations be changed to specifically make liable, all parent companies, subsidiaries and affiliates, for clean-up, similar to certain of the EPA site clean-up rules. (58)

Response: The Department is unaware of what federal regulation the commenter is referencing. No change was made.

77. *Comment:* My good friends, Bob and Linda Mant are both dead at an early age because they were ignorant of the hazards of raising salmon next to the Callahan Mine in Brooksville, now a superfund site. The people of Maine are paying for that cleanup. what guarantees are you making that Irving Corp. and other companies

mining in Maine won't saddle taxpayers with the cost of cleanup and restoration if they declare bankruptcy? (66)

Response: The mining rule financial assurance was drafted to provide the best possibility of surviving bankruptcy by utilizing model instrument language for trust funds and letters of credit. This model language does not allow access by third parties (such as creditors) to the funds contained in a trust fund or letter of credit. Both the trust fund and letter of credit instruments would identify the Department as the beneficiary of the funds and would prevent release of any funds from either of the instruments without the Department's express permission.

78. *Comment:* I am very concerned that the Bureau of Environmental Protection is changing Maine's mining laws in a way that eliminates some of our existing environmental protections in favor of open pit mining companies by removing the prohibition for mining in coastal wetlands and by no longer requiring responsibility for long term cleanup of mining sites. As a Mainer, I find this completely unacceptable. Please do not water down our environmental protections! (68)

Response: The Department has selected minimum setback distances as performance standards for siting mining operations. Regardless of these minimum setbacks, the Department must find that there is reasonable assurance the mining operation will not violate applicable surface water quality standards within or outside of the mining area, or groundwater standards outside the mining area. If additional setback distance is required to achieve this finding, it will be incorporated into permitting decisions. No changes have been made as a result of this comment to the siting provisions of the rule.

The mining rules do require the mining company to have responsibility for the long term cleanup of their site. This is accomplished by having the financial assurance cover among other things, reclamation, closure, post closure, corrective action and the operation of the wastewater treatment plant for at least 100 years.

79. *Comment:* I also oppose any changes that would increase the likelihood taxpayer dollars would be spent on resource protection/mitigation rather than industry dollars (specifically, any changes to Section (D) (12) regarding wet management and perpetual treatment). (72)

Response: The Department believes that the addition of wet mine waste units within the rule does not mean that the Department will be permitting mines requiring perpetual effluent water treatment. As stated at the December 3, 2013 deliberative session with the BEP, wet mine waste units will require effluent water treatment for an indefinite period of time, which may be less than 30 years or greater than 30 years. Given the ability of wet mine waste units to prevent acid rock drainage (reference the Global Acid Rock Drainage Guide, 2012, Section 6.6.7), the Department did not want to exclude the use of this technology.

Likewise, the Department did not want to permit the use of this technology if the proper resources were not allocated to ensure its successful implementation. The Department has included language associated with wet mine waste units that may exceed the 30-year post-closure period, "…provided a Department-approved long-term monitoring and maintenance plan is in effect, and a Department-approved financial assurance mechanism is in effect for the length of term determined to be necessary by the Department." As part of any application including a wet mine waste unit, the applicant will need to propose an expected period of time post-closure that effluent water treatment will be necessary. The Department will evaluate the proposal and either accept, reject, or modify the post-closure time period for effluent water treatment. The Department believes this language provides an appropriate balance between consideration of available technologies and environmental protection. No change was made.

80. *Comment:* I am writing to ask that you strengthen, not weaken our mining laws, regarding the proposed Irving open-pit copper mine at Bald Mountain in northern Maine. Protect us from mining pollution. Please make the prospective mining company put billions of dollars into a trust fund first before granting them a mining permit and require a third party without vested interests to verify the adequate amount and availability of the clean-up funds as a precaution of the mining company going bankrupt. (81)

    Response: The rule was changed to require full funding before any removal, exposure, or processing of overburden, waste rock or ore. The rule does allow either a trust fund or a letter of credit to cover the full costs of the mine. Either of these mechanisms when executed properly and overseen is viewed as secure while still allowing ready access by the Department should it is necessary.

    The existing rule requires that all terms and conditions of financial assurances must be analyzed by individuals with documented experience in material handling and construction, mining costs, and financial analysis. The Department expects to hire financial expertise to assist in these reviews including assistance with mining cost estimates. The Department also intends to seek assistance for those individuals with appropriate knowledge who will not have a vested mining interest.

81. *Comment:* Open pit mining companies must be held responsible for the damage they do to the environment. They must clean up after themselves and cannot be allowed to pollute the water. (84)

    Response: Under the mining rule, mining companies are required to clean up any problems they create. The amount of financial assurance required is intended to ensure that there are sufficient funds to accomplish this requirement.

82. *Comment:* I believe the idea of establishing a trust fund to protect against the dangers of mining pollution and necessary reclamation is a good one and essential before

moving forward. In addition, I feel strongly that any firm approved to engage in mining activity that poses a threat to the environment should carry pollution liability insurance with long tail discovery provisions that will assure financial recourse in the future to cover the potential costs of reclamation. (88).

Response: The rule was changed to require full funding for the mine before removal, extraction or processing of overburden, waste rock or ore. This "full funding" of financial assurance must cover among other things the cost of reclamation, closure, post closure and corrective action to correct pollution. In addition the rule also requires that the mining company retain liability insurance including for both sudden and non-sudden (on a case by case basis and when land disposal occurs) occurrences. The rule requires that the insurance not be "claims made" insurance unless the Department approves of such type of coverage. Not allowing "claims made" insurance is important particularly when dealing with non-sudden insurance where it may be many years before a problem is apparent. Therefore the rule envisions the type of "long tail of discovery" for pollution liability insurance that the commenter requests.

83. *Comment:* I am more than a little alarmed by the changes proposed to Maine mining laws. I believe these changes will increase the likelihood that Maine's environment will suffer from serious mining pollution and that Maine taxpayers will have to pay to clean it up. Therefore I am opposed to these changes, If a mining company cannot guarantee that they can mine responsibly and in an environmentally safe manner-they should not be allowed to mine at all in Maine. For many decades, Mainers have been left to foot the bill of mine companies who came, extracted value and profit and then left us with polluted soil, water and a degraded environment. When remediation was required, it was Maine tax-payers who were forced to pay for it-and not the mining company. That is flat out WRONG. Please do not allow any changes to Maine mining laws which make it easier for mining companies to profit from their activities at the expense of our state, the environment and wildlife and Maine citizens. (95)

Response: The Department agrees with the commenters concern and has put measures in the rule to prevent this from happening. Under the mining rules, mining companies are required to clean up any problems they create. The amount of financial assurance required is intended to ensure that there are sufficient funds to accomplish this requirement. The rule provides for characterization of all mine waste. The storage and containment design is then based on the degree of risk posed by the mine waste as determined by the mine waste characterization. There are provisions for routine water quality monitoring of each mine waste unit, along with 24-hour notification requirements if a mine waste unit is violating a compliance standard. This notification triggers additional actions, one of which may be identifying and implementing corrective action measures. Within the rule there are many measures to ensure that Maine taxpayers are not stuck with paying any cleanup costs. No change was made.

84. *Comment:* The DEP had required more demanding financial assurances so that Maine taxpayers would not be left to foot the bill for failed or abandoned mines. The BEP revised rule would allow a variety of options for mining companies, including irrevocable letters of credit and incremental payments into a fund that could be used by the state if a mining operation ceased or was abandoned. With the overwhelming evidence of mining operations going bankrupt and leaving taxpayers with the cost of cleanup, this is a very unwise, even negligent, change. This change shifts the cost from mining corporations to Maine taxpayers. (116)

    Response: The Department agrees that the Maine taxpayers should not have to clean up a mining company's pollution. The rule was changed to require full funding for the mine before removal, extraction or processing of overburden, waste rock or ore. The rule does allow either a trust fund or a letter of credit to cover the full costs of the mine. Either of these mechanisms when executed properly and overseen is viewed as secure while still allowing ready access by the Department should it is necessary. The concept of incremental payments into a trust fund was eliminated from the rule.

85. *Comment:* After reading Attachment 4 (Subchapter 4) regarding the greater flexibility and allowing incremental funding of the financial assurance mechanisms, I was in shock! This screams superfund clean-up given the history of mining in Maine. (117)

    Response: The incremental funding of the financial assurance mechanism was eliminated from the rule.

86. *Comment:* I write as a man who no longer lives in Maine yet visits frequently. My grandparents hail from Machias, my father from Portland. I live in Connecticut but travel, and recreate frequently in Maine. I bring my Connecticut dollars into the state of Maine. I do so because Maine offers great value. Maine offers me fresh air, unpolluted water, pristine landscapes that revitalize my soul. For this I, and millions of others, willingly pay.

    Response: The Department acknowledges the Commenter's support for a healthy environment. No changes were made based on this comment.

87. *Comment:* I write because I have recently become aware of proposed changes to the Maine Mining Rules. While some types of mining, carefully regulated, are relatively benign, these changes would apply to various categories of mining operations. They are too broad, capricious, and dangerous. It has come to my attention that these proposed rules were written without input from independent mining experts. I hope that I am wrong, please tell me who were your independent experts involved in the promulgation of these proposed rules. These proposed regulations lack objective criteria to ensure corporate accountability and long-term health for the state of Maine and its residents. These changes attempt to ensure that mining interests in the state of Maine are financially successful. Non-renewable resource extraction has only limited

short-term benefit. Recreation and tourism has sustained the Maine economy for centuries. Your attempts to promote the former will have devastating effects on the latter. (118)

Response: This comment does not pertain to any specific provisions to Chapter 200. The framework law at 38 M.R.S. § 490-NN(1)(B) requires the Board to adopt rules to carry out its duties under the Act. This rulemaking process adhered to all statutory requirements of 38 M.R.S.A. § 341-H, 38 M.R.S.A. § 341-D, and 5 M.R.S.A. § 8051, *et seq*., including public participation and careful consideration of all comments. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. The Department consulted with North Jackson Company in the early draft stages of rule development. No changes were made based on this comment.

88. *Comment:* Your Financial Assurance Mechanisms will do little or nothing to prevent the huge unfunded liability paid for by Maine's taxpayers as contamination continues indefinitely many generations into the future (much like the Callahan superfund mine today.) (128)

Response: The mining rules do require the mining company to have responsibility for the long term cleanup of their site. This is accomplished by having the financial assurance cover among other things, reclamation, closure, post closure, corrective action and the operation of the wastewater treatment plant for at least 100 years. Either of the two allowable mechanisms for the Group A and B waste sites, when executed properly and overseen, is viewed as secure while still allowing ready access by the Department if it is necessary. The intent of these provisions is to prevent the type of taxpayer liability that occurred in the Callahan mine situation.

89. *Comment:* Regarding bald mountain mining rule changes, please strengthen laws to protect us from pollution (especially water) and require a third party to verify the adequate amount and availability of clean-up funds. (130)

Response: The existing rule requires that all terms and conditions of financial assurances must be analyzed by individuals with documented experience in material handling and construction, mining costs, and financial analysis. The Department expects to hire financial expertise to assist in these reviews including assistance with mining cost estimates. The Department intends to seek assistance for those individuals with appropriate knowledge who will not have a vested mining interest.

90. *Comment:* With these new rules, mining companies would not have to demonstrate financial assurance like the previous rules required. Instead, by allowing them to pay

incremental payments or provide irrevocable letters of credit, the state of Maine may be left to take care of a lengthy and expensive cleanup. (142)

Response: The mining rules do require the mining company to establish financial assurance. Detailed cost estimates are required and then the full amount of these cost estimates need to be set aside in either a trust fund or a letter of credit with a standby trust fund (for Group A and B waste sites). Either of the two allowable mechanisms, when executed properly and overseen, is viewed as secure while still allowing ready access by the Department if it is necessary. The intent of these provisions is to prevent the taxpayer from assuming the liability for mining sites. The incremental payment of the financial assurance was eliminated from the rule.

91. *Comment:* The financial assurances requirements are very weak. Considering the real potential for a very extended time frame, I fear that they could be totally inadequate. The Callahan mine in Brooksville, now a Superfund site, is a prescient example of externalizing the costs to the citizen tax payer. There are documented acid discharges from mines from the Roman era that are on going today. With a 30 year post closure care period (section 24 (B) (5)) and extensions for 20 year increments ad infinitum (Section 22 (B) (7) (e)), clean up with adequate monitoring could easily continue way past the bankruptcy or dissolution of the mining operation so the investors will be long gone but the taxpayers will be left with the bill. CERCLA is a very slow, laborious and painful process and until the clean up is complete, typically years later, toxins will continue to be released into Maine and exposing its people. Section 17 should be strengthened so as to ensure necessary finances for proper monitoring and remediation from initiation of the project and through for as long as the initial post closure and incremental periods exist, which could be a very long time. (122)

Response: The rule was changed to require full funding for investigation, monitoring, closure, post closure, treatment, remediation, corrective action, reclamation and maintenance of the mine. In addition the rule was changed to require that pathways from the mining areas to adjacent groundwater and surface water resources be assessed in the Environmental Impact Assessment. The cost of potential corrective actions for contamination following these pathways is also required to be established upfront.

92. *Comment:* The earlier draft was better. It required that funds sufficient to cover <u>all</u> potential clean-up costs be in place <u>before</u> mining operations began. There should not be any financial risk at all to the state and citizens of Maine. Any company that wants to come in and mine should have to provide an iron-clad guarantee of funding any potential environmental harm. I am not convinced that the mechanisms described that utilize an irrevocable letter of credit actually do achieve this goal. (148)

Response: The rule was changed to require the full funding of the mine before any removal, exposure, or processing of any overburden, waste rock or ore.

93. *Comment:* Financial assurance posted to protect the public from costs of cleaning up mining operations must be adequate and there must be no doubt about the state's ability to access those funds instantly when necessary. Changes to requirements for financial assurance have significantly reduced the state's ability to protect itself in the likely event of a bankrupt mine. Full financial assurance must be in place before any excavation or disturbance of overburden, waste rock or ore. These changes are scattered in several places, specifically: a) With changes to Section 2 (I) (AAAA) and 17 (D)(1)(a), full financial assurance is now not required until the mine is "turning under." The term "turning under" is not clearly defined, and we have been unable to find any other examples of statutes or rules in other jurisdictions that use "turning under" as the trigger for provision of financial assurance. The current definition of turning under depends on disturbance of "rock muck", which is not defined at all. Based on discussion among the Board members at the Deliberative Session, it appears that this term applies to underground mining techniques, but may not appropriate to surface or pit mines. In any case, there is no indication that the disturbance of "rock muck" (whatever that may be) is the point at which risks to the environment begin to accrue. As we suggested in our comments on the previous draft, we believe full financial assurance must be in place at the time that any potentially acid-generating materials are disturbed or exposed. Risks to the environment—and potential risks to taxpayers—begin at that point. (150)

    Response: The term "turning under" was eliminated from the rule and was replaced with the suggested phrase from the commenter of "before overburden, waste rock or ore is excavated, exposed or processed". The issues with the undefined terms in the "turning under" definition were therefore eliminated. In addition, the new phrase better addresses the point of having full financial assurance before risks to the environment begin to accrue.

94. *Comment:* The rule fails to provide sufficient financial assurance. All of the money necessary to clean up the site should be put in a trust before construction begins. (151)

    Response: The rule was changed to require the full funding of the mine before any removal, exposure, or processing of any overburden, waste rock or ore. The rule does allow either a trust fund or a letter of credit to cover the full costs of the mine. Either of these mechanisms when executed properly and overseen is viewed as secure while still allowing ready access by the Department should it is necessary.

95. *Comment:* The commenter objects to rules failing to guarantee that mining companies will provide upfront 100 percent of the financial resources necessary to pay for any clean-up from acid mine drainage or other damage. (154)

    Response: The rule was changed to require the full funding of the mine before any removal, exposure, or processing of any overburden, waste rock or ore.

96. *Comment:* Finally, AMC believes that changes to the financial assurance requirements do not ensure that a mining company will have the resources up front to cover any potential damages or cleanup costs associated with mining development. The rules around the company's financial responsibility must be clear, and ensure that the company has the resources up front. An applicant should be required to secure the full amount of financial assurance in a trust fund up front. (155)

    Response: The rule was changed to require the full amount of financial assurance upfront before any removal, exposure or processing of any overburden, waste rock or ore. There are non-extractive activities that are allowed before full funding for the entire mine but even these costs must be financially assured before they occur. The rule requires that these non-extractive activities must have assurance for reclamation, closure and post closure for the next year's expected activities.

97. *Comment:* Section 17 Financial Assurance actually, indirectly at least, increases natural resources protection risk and does nothing to improve protection against unlimited unfunded public liability. The additional language allowing an irrevocable letter of credit as financial assurance doesn't improve the entire structure. It is still is not aligned with the particular underwriting standards governing the market for risk finance in metallic mining. Using "in Market" requirements for reclamation bonds and all insurance provides reliable risk finance products and also the operator vetting and project specific oversight and underwriting that comes with that. This is especially important for unique high risk niche markets involving possibly unlimited non stoppable environmental contamination. Speaking as a recognized expert in risk finance and risk transfer for unique construction risks, I advocated in my statement on the interim technical rules for Exploration & Advanced Exploration that DEP retain a risk management firm specializing in mining to oversee all aspects of insurance and bond requirements, all review and approval of all documentation and all claims management (at the applicants expense). That is still the best approach both in terms of protecting the public interest and in terms of insuring the highest caliber applicants and operators. That same expert guidance is needed for all parts of the statute addressed to financial assurance. Going "off market" invites disreputable , inexperienced and incompetent mine operators and thereby increases the likelihood of environmental damage exponentially. Accommodating off market permittees/applicants for a high hazard specialty area like metallic mining in sulfides invites disaster. So this further accommodation of JD Irving's desire to be the operator applicant at Bald Mountain even though they know nothing about mining is very unwise. Where an owner wishes to stay a principal (not lease the mineral rights to another entity), and can't qualify directly as an applicant , they should be required to designate an AGENT of competence (NOT A CONTRACTOR) and to specifically forbid any direction of any kind by the unqualified inexperienced owner. Any expert in Risk management for this kind of risk would give the same advice. The entire emphasis on security for closure plans when a reputable reclamation bond is all that is needed does nothing to reduce the risk of unlimited unfunded public liability especially without a clear corresponding emphasis on not permitting closure plans

that can't attain self-sustaining passive neutral drainage at closure. Irrevocable letters of credit are most appropriately used to secure an extremely high self-insured retention where a smaller deductible is required by the permitting authority or as security for an uninsurable or unbondable risk. (159)

Response: The rule already allows the Department to hire whatever outside experts it deems necessary in the review of a mining application. This would include the review of the financial assurance or financial estimates. Mining companies with bonds have failed in the past. Requiring a bond is no assurance that the mine will not fail or leave the State with the liability of cleaning up the site. The financial assurance mechanisms allowed in the rules have the highest likelihood of being available to the State should it become necessary for the Department to address issues at a mining site. Investors can always require a reclamation bond if they believe this will provide them with more assurance that a third party is looking at the mining operations. However the Department does not want to be in a position of not being able to obtain the financial resources immediately should it be necessary. Bonds generally do not provide this type of easy access. In addition the rule already requires ongoing inspection of the mining operations to ensure that it is being operated appropriately.

98. *Comment:* It isn't pretty and generally involves a lot of taxpayer money to clean up. The mining companies must be held accountable to post an adequate bond up front to ensure that both ground and surface water quality is maintained and the inevitable cleanup that will be required is done at their expense and not the taxpayers. While the Irving Company is claiming they will create 700 direct and indirect jobs, the majority of these jobs will go to Canadians and out of state residents with mining equipment and experience and experience conducting cleanup of acid mine drainage. The Maine jobs that will be lost by the destruction of the native brook trout habitat will end up being covered by the taxpayers of the State of Maine. This must not be allowed to happen. (166)

Response: The mining rules do require the mining company to have responsibility for the long term cleanup of their site. This is accomplished by having the financial assurance cover among other things, reclamation, closure, post closure, corrective action and the operation of the wastewater treatment plant for at least 100 years. Either of the two allowable mechanisms for the Group A and B waste sites, when executed properly and overseen, is viewed as secure while still allowing ready access by the Department if it is necessary. The intent of these provisions is to prevent the type of taxpayer liability that has occurred at mine sites.

99. *Comment:* The insurance section of the Maine Mining Regulations has been amended accordingly to require the Applicant/Permittee to maintain non-sudden pollution liability coverage in addition to the sudden and accidental liability pollution liability coverage which has been previously required under the regulations. The terms and conditions of a non-sudden pollution liability differ materially from the

terms and conditions of a sudden and accidental pollution liability policy. This has not been taken into consideration by the legislative group assigned to amend this section of the regulations. In addition, the cost for non-sudden pollution liability is expensive, difficult to obtain and effectively duplicates the financial protection already in place with the State in the form of a surety bond, letter of credit, cash deposit, etc. which guarantees that funds will be available should the Applicant/Permittee fail to cleanup and remediate the mining site. The following changes are suggested to mitigate the impact of these new regulations on the Applicant/Permittee: Section F(4) - The Applicant/Permittee will be unable to comply with this requirement as legal fees under a standard non-sudden pollution liability policy are included within the limits of coverage unlike a sudden and accidental pollution liability policy where the legal fees are exclusive or outside the limits of coverage. Section F(6) – The Applicant/Permittee will be unable to comply with this requirement as all non-sudden pollution liability policies are written on a "claims made" basis in contrast to sudden and accidental liability policies which are written on an "occurrence" basis. Recommended Change for Section F(4) and F(6) - Delete Section F(4) and F(6) and replace with the following language: "All liability insurance coverage required herein shall be written on policy forms readily available in the insurance marketplace to cover non-sudden and sudden and accidental pollution events". Section F(3) – The limits of non-sudden pollution liability insurance coverage should be reduced from $6 million per occurrence with a $12 million annual aggregate to $2 million per occurrence with a $2 million aggregate. This is the basic limit of coverage generally available for non-sudden pollution liability policies. Although the limits of coverage has been substantially reduced, the State will continue to have the option to require higher limits of coverage for sites with a greater risk. Section F(5) – Large mining operators should have the option to self-insure risk of loss subject to their net worth exceeding a certain level (i.e. $1 billion). Section F((7) – A minimum A.M. Best of "A-" should be required as there are very few insurers with an A.M. Bests rating of "A+". An A.M. Bests rating of "A-" is universally acceptable by financial institutions and other regulatory authorities. (168)

Response: Legal fees are excluded from coverage under both sudden and non-sudden liability insurance under the model language of 40 CFR 264.147. This language and the exclusion of legal fees from both sudden and non-sudden insurance are in use nationwide. No change was made.

Under the model language, both sudden and non-sudden liability insurance are available as either occurrence or claims made insurance. In addition if the Applicant can convince the Department that occurrence based insurance is not available, the rule contains the flexibility for the Department to accept a "claims made" policy. No change was made.

The rule requires liability insurance for general liability and sudden and non-sudden for bodily injury and property damage to third parties. Under different insurance companies it may be titled differently; irrespective of the insurance

name, this is the type of insurance that is envisioned by the rule. The rule was modified to consistently refer to the more general insurance as "Comprehensive general liability insurance".

The commenter recommends that the limits of the non-sudden insurance be reduced from the current $6 million per occurrence and $12 million annual aggregate. The suggested reduction was to $2 million per occurrence with a $2 million annual aggregate. The commenter suggests that the rule should set the insurance at the base level available for this type of insurance and raise it higher for sites with higher risk. Mining sites pose a higher risk of contamination than the typical hazardous waste site. The base level of non-sudden insurance for hazardous waste land disposal sites is $3 million per occurrence and $6 million annual aggregate. Generally, the annual aggregate value is double the per occurrence value. The current Chapter 200 mining rule has sudden and accidental insurance requirement of $2 million per occurrence and $4 million annual aggregate. Generally, the amount of insurance for non-sudden insurance is larger than for sudden and accidental insurance. The commenter is therefore suggesting a level of insurance for non-sudden insurance that is lower than the current Chapter 200 sudden and accidental insurance, with an annual aggregate not double the per occurrence value as is typical, and substantially lower than those values for a hazardous waste facility. No changes were made.

Insurance provides an additional level of protection aside from the already existing mining company's assets. It is a form of shared risk should accidents or releases occur where the insurance company takes on a level of risk for the mine in exchange for insurance premium payments. Self-insurance provides no additional level of protection from what already exists with a company. In addition if a serious accident happens, this will be the time when the mining company's assets will be taxed and is just when it is necessary to have additional resources available. No change was made.

The rule requires insurance from an insurance company rated A++ or A+. These are insurance companies that are rated "Superior". A current check of the A.M. Best site for those insurance companies with a "stable" outlook found 13 companies rated as A++ and 102 companies rated A+ for a total of 115 companies. The number of available insurance companies with a "Superior" rating is adequate. No change was made.

100. *Comment:* Consistent with our testimony presented to the Legislature, CLF opposes the use of irrevocable letters of credit as a mechanism for providing financial assurance. Letters of credit are highly complex instruments that are negotiation-intensive and document-intensive, and would require the state to perform a level of review and negotiation to ensure it is getting the necessary protection that it currently does not have the resources to do. Additionally, most letters of credit (even if irrevocable) are of limited duration and require premium payments, raising the possibility of a gap in coverage at exactly the time when coverage is required, i.e.,

when an applicant is in dire straits financially. Accordingly, the additional clause at 17(c)(1)(d) should be deleted.

Response: The rule was changed to model the mining rule letters of credit and trust funds after the federal hazardous waste language for these instruments. The use of these model instruments will eliminate much of the instrument negotiation, provide protections already built into these model documents, and provide a framework for utilization of these mechanisms that will not need to be renegotiated with mining applicants. Utilizing these model instruments will also allow for access to national resources for help in implementing the provisions for trust funds and letters of credit. In addition the Department envisions hiring a qualified person to assist the Department in the review of these documents.

The model instrument will need to require that the letter of credit institution notify the Department immediately if any fees are not paid. This will allow the Department time to ensure that the fees are paid or that the letter of credit is "called" to liquidate the funds into the standby trust.

The use of a letter of credit was viewed as a good balance between those commenters who wanted more options for the mining companies to begin operation, and those commenters who wanted the full cost of the mine to be financially covered before mining began. The option for letter of credit for assuring for mining sites with Group A and B was retained.

101. *Comment:* More importantly, the proposed rules continue to lack any provision for an independent, third-party assessment of the estimates for reclamation, closure and post-closure monitoring costs provided by the applicant. The requirement of financial assurance will mean little if the underlying costs are significantly underestimated, as has been the case with mining operations in Maine and across the country. Accordingly, an additional clause should be added at section 17(B)(3) to require the applicant to fund the independent evaluation of its cost estimates by a third party to be selected by the Department. (172)

Response: The existing rule requires that all terms and conditions of financial assurances must be analyzed by individuals with documented experience in material handling and construction, mining costs, and financial analysis. The Department may hire third parties to perform these evaluations. The Department expects to hire financial expertise to assist in these reviews; however, it is not clear in the Mining Act whether the Department may require the applicant to pay directly for such costs. It is clear, however, that the mining application fee in the Mining Act was set higher to allow for the Department to hire this type of expertise. Therefore the Department expects to utilize a portion of the application processing fee in this type of third party assistance.

102. *Comment:* Proposed methods for assuring a fund paid for by Irving for waste water pond maintenance looks shaky, again because we can neither count on Irving or our country's financial system to continuously monitor and contain waste for the 100 or 200 years or more that is needed. (184)

Response: The mining rules require financial assurance to cover among other things, reclamation, closure, post closure, corrective action and the operation of the wastewater treatment plant for at least 100 years. Either of the two allowable mechanisms for the Group A and B waste sites, when executed properly and overseen, is viewed as secure while still allowing ready access by the Department if it is necessary. Whether a trust fund or letter of credit is utilized, it will be important for the Department to continually assess the financial security of the institution holding either the trust fund or letter of credit. The Department envisions using a portion of the application or annual fee to hire this type of expertise.

103. *Comment:* Please make every effort to ensure that waste is not a problem for future generations. This would include adequate financial responsibility for any damage or problem. We don't need more super fund sites in the future. (161)

Response: The mining rules require that the financial assurance cover among other things, reclamation, closure, post closure, corrective action and the operation of the wastewater treatment plant for at least 100 years. Either of the two allowable mechanisms for the Group A and B waste sites, when executed properly and overseen, is viewed as secure while still allowing ready access by the Department if it is necessary. The intent of these provisions is to prevent the type of taxpayer liability that has occurred at other mining sites.

104. *Comment:* Section 17 (B)(1)(a), (b) and (3), (4) **The** prior language of Section 17(B)(1)(a) and (b) tracked § 490-RR.2 (coverage of financial assurance) of the Mining Act almost exactly, but the additional language now proposed for (a) goes beyond the statute. For example, why have "siting and development" been added? If the mine operator defaults, why would the DEP want to site and develop the mine? The Department should only want, and be entitled to, sufficient funds to close, reclaim and remediate the mining and affected area, consistent with the language of § 490-RR.2. To remain consistent with the statute's scope for financial assurance coverage, we request the Department stick with the original language. (177)

Response: The siting and development language from Section 17(B)(1)(a) was removed from the rule. Subsection 490-RR(2) allows for "other necessary environmental protection measures including remediation of any contamination of the air, surface water, or groundwater." Activities necessary for corrective action and for necessary actions under the mine plan were retained in the rule. These categories of costs are consistent with the statutory language.

105. *Comment:* **17(B)(2)**We read this language as requiring enough funds for a third party to conduct the work, but only if the Applicant is unable or unwilling to do so. Please confirm this is the intent and that the Department will not prohibit the Applicant from carrying out the activities it is able and willing to undertake. (177)

Response: The intent of financial assurance that the Department can access is for situations where the applicant is unable or unwilling to perform the activities.

106. *Comment:* **17(B)(3) S**ee comments under B. 1(a) and (b) above. We request the Department return to the original language, which is consistent with the Mining Act. (177)

Response: The language to which the commenter appears to object is the requirement for the applicant or permittee to provide a detailed cost estimate for implementing the mine plan. This cost estimate is to ensure that there are sufficient funds to complete the project as proposed and as approved. It is unclear why the commenter would object to financially assuring for the implementation of the mine plan. No change was made.

107. *Comment**:*** <u>Section 17 (B) (4) (Financial Assurance-cost estimates).</u> See comments under B. 1(a) and (b) above. We request the Department return to the original language, which is consistent with the Mining Act.

Response: It is unclear what language in the rule that the commenter is objecting. The requirement that the cost estimates reflect the reclamation, closure and post closure monitoring costs for each mine plan activity is completely in keeping with the statutory language for financial assurance. No change was made.

108. *Comment:* As we indicated in our October 25, 2013 detailed comments (p.28), choosing the highest cost option for all estimates is not reasonable. In what context does the government or a private entity choose the highest bid, no matter how unrealistic it may be? We do not believe the addition of the word "alternative" makes this suggested language any more palatable. The rules should require reasonable cost estimates, not the most extreme. We request the Department make this change. (177)

Response: The intent of financial assurance is to ensure that there is enough money to cover all the mining activities and any liabilities incurred. Costing for the highest alternative is designed to ensure that there will be adequate financial resources available to conduct the necessary actions irrespective of what alternative is chosen or is ultimately necessary in a given situation. No change was made to the rule.

109. *Comment:* Section 17. B. Old paragraph 6 (deleted). Please do NOT delete this stipulation – as I understand it, it requires that if the mining operations would be brought to a halt, the reclamation plan costs would have been kept completely up to date. There would <u>always</u> be enough money in the financial assurance to that if the

mining operation were to cease, funds would immediately be available to do all required clean-up. (148)

Response: This provision was not eliminated but rather relocated to Section 26(B) (6). Other sections of the rule already require that financial assurance be sufficient to conduct reclamation at any point in time as well as for the expected mining activities in the upcoming year.

110. *Comment:* Section 17(C)(1)(d) NRCM opposes the use of irrevocable letters of credit for financial assurance. Financial assurance should require use of the instruments listed in 17(C)(1)(a-c). Letters of credit are not as secure as the instruments in Section 17(C)(1)(a-c). (163)

Response: There is some degree of uncertainty with any financial assurance method. Model trust fund and letter of credit language are designed to prevent the cash in trust funds and letters of credit from becoming part of the bankruptcy estate. However a debtor can always attempt to make an argument for both a trust fund and letter of credit. The Department believes that the letter of credit mechanism is no less secure than the trust fund in this regards. Generally, if structured like the model hazardous waste language, a trust fund and a letter of credit should be outside the bankruptcy estate. These instruments are generally viewed as an environmental regulatory obligation for which third parties have no access. No change was made.

111. *Comment:* 17(D) See comments concerning proposed definition of "turning under" after proposed Section 2. AAAA. (177)

Response: The "turning under" language was eliminated and replaced with language from another commenter.

112. *Comment:* Section 17(D)(1)(a) The financial assurance should be in place not only before the turning under, but also before the site preparation and excavation support. (148)

Response: The rule was changed to require two triggers for financial assurance. The first trigger is for the costs for site preparation and non-extractive activities. The cost for reclamation, closure and post closure for these activities must be assured for any work expected in the upcoming year. As such, the costs for this category should always have sufficient funds to address the issues associated with the non-extractive actions for the mine's current situation and those actions expected in the next year.

The second trigger for financial assurance is for the extractive phase of mining. In this phase, the full cost for the mine's obligations must be assured before any removal, extraction or processing of any overburden, waste rock or ore.

113. *Comment:* This section makes the calculation of financial assurance very complicated. Again, NRCM believes an applicant for a mine should place the full

amount of financial assurance in a trust prior to construction using the instruments in Section 17(C)(1)(a-c). (163)

Response: This section of the rule requires three types of financial actions. First, the rule requires the full amount of financial assurance in the account prior to the removal, extraction or processing of any overburden, waste rock or ore. Second, prior to triggering this extractive type of activity, there will be other disturbances for roads and support types of activities that would require reclamation and perhaps other actions. This rule requires financial assurance for the costs to perform reclamation, closure and post closure for these non-extractive items. Third, the costs required in this section must be updated each year to ensure that sufficient funds are available. No change was made.

114. *Comment:* Section 17(D)(2)(a)(ii) The language in this section is particularly weak. It does not require periodic assessments of the viability of the issuing financial institution and only states that the Department should have a "high likelihood" of being able to access the letter of credit. This is essentially the same as saying the letter of credit needs to be secure enough that Maine taxpayers might not get stuck with the costs of mine closure and remediation. The best remedy for this is to require mining companies to put the full cost of financial assurance in a trust prior to construction using the instruments in Section 17(C)(1)(a-c). (163)

Response: Trust fund and letter of credit institutions both pose some risk for failure. It is important for the Department to assess the strength of any financial institution that will hold assets to pay for mining company obligations. This need for assessment will be necessary throughout the life of the financial assurance mechanism whether a trust fund is utilized or a letter of credit. The "high likelihood" language for the Department to utilize in its review of the financial institutions health was changed to "certainty" which is a higher expectation. In any case, the Department expects to hire a qualified person to make this evaluation of the financial institution's security.

115. *Comment:* In Section 17 (C)(1)(d), the rules now allow irrevocable letters of credit to fund financial assurance. We believe that under certain bankruptcy circumstances, a bankruptcy trustee and/or the issuer of letter of credit might delay or withhold promised funding. This delay would put substantial constraints on the state's ability to initiate a clean-up in a timely way. We believe cash or other assets that may be instantly accessed by the state should be the only allowable financial instruments. (150)

Response: The model trust fund and letter of credit language are designed to prevent the cash in trust funds and letters of credit from becoming part of the bankruptcy estate. However a debtor can always attempt to make an argument for both a trust fund and letter of credit. The Department believes that the letter of credit mechanism is no less secure than the trust fund in this regards. Generally, if structured like the model hazardous waste language, a trust fund and a letter of credit should be outside

the bankruptcy estate. These instruments are generally viewed as an environmental regulatory obligation for which third parties have no access.

116. *Comment:* In Section 17 (D)(2)(a)(ii), the standard for approval of an irrevocable letter of credit as the instrument of financial assurance is "there is a strong likelihood that the money will be available should the Department need to draw the funds." This is a very low bar, and should be replaced with "there is certainty that the money will be available . . . ." (150)

Response: The rule was changed to replace "strong likelihood" with the term "certainty".

117. *Comment:* Section 17(D)(2)(a)(iv) This section is not clear and describes needlessly complex financial assurance mechanisms. It should be struck. (163)

Response: The current chapter 200 that is in effect contains similar language in that if a bond can be structured to work like a letter of credit it could be allowed. The added language ensures that an important aspect of a letter of credit which is the ability to "call" the letter of credit and have the money deposit into the standby trust is a key part of this concept. It is this aspect that provides the state with assurance that the money will be readily available without delay or the need to go to court to obtain the funds. No change was made.

118. *Comment:* 17(D)(2)(a)(v) Won't there be only one trust or standby trust, not two? Please clarify. (177)

Response: There could be one instrument, either a trust fund or a standby trust fund. However there could be two trust funds, one with cash deposits and one as a standby trust associated with the letter of credit depending on how the applicant/permittee choses to structure their financial assurance.

119. *Comment:* 17(F) This proposed insurance requirement section is unclear about the types of insurance the Department is requesting and that lack of clarity may make compliance difficult. It also makes it difficult to properly evaluate how much such insurance may cost. The proposed rule uses terms that, while perhaps understandable to environmental regulators, are not used in the insurance market from which the applicant/permittee must procure the required insurance. For example, the proposed rule requires "comprehensive liability insurance." While there was a policy called a "comprehensive general liability policy" available many years ago, since the mid-1990s there has not been such a policy. There is a commercial general liability policy available in the market and if that is what the DEP intends, the rule should use the term that permits the applicant to clearly comply with the requirement. Also confusing is the proposed rule's requirement for "sudden and accidental insurance." There is no insurance product called "sudden and accidental insurance." An applicant cannot call its insurance broker and ask for "sudden and accidental insurance." More

important than the label on the policy, the rule does not describe what kinds of events and damages the insurance is intended to cover. There are many types of insurance coverage and each covers a different kind of event and damage. For example, a commercial general liability policy covers tangible property damage or bodily injury but does not cover economic loss caused by negligent performance of services; an error and omissions policy must be procured for those damages and events. Perhaps the Department is requesting Environmental Impairment Liability insurance. If so, we suggest that the rule specifically state this. (177)

Response: The rule requires liability insurance for general liability and sudden and non-sudden for bodily injury and property damage to third parties. Under different insurance companies it may be titled differently, irrespective of the insurance name, this is the type of insurance that is envisioned by the rule. The term "sudden and non-sudden occurrence insurance" is in use in hazardous waste regulations nationwide. These types of insurance are routinely obtained across the nation.

To assist Applicants, the Department provides the following information on the types of insurance coverage expected:

A mining operator must meet the minimum requirements for sudden and accidental insurance for bodily injury and property damage to third parties caused by the sudden and accidental occurrence. A sudden and accidental occurrence is an event that is not continuous or repeated. Examples of sudden and accidental occurrences are fires and explosions.

A non-sudden occurrence is an event that takes place over time and involves continuous or repeated exposure to mining waste. An example of a non-sudden occurrence is a leaking mining tailings impoundment that contaminates a drinking water source over time. The owner and operator of a mining land disposal unit must have liability insurance for bodily injury and property damage to third parties caused by non-sudden occurrences.

The rule was modified to consistently refer to the more general insurance as "Comprehensive general liability insurance" which under certain companies may be known as "Commercial general liability insurance".

20. Performance Standards

120. *Comment:* The Section 20 Performance standards (unchanged by these amendments) have very inadequate discussion and no meaningful mining specific performance standards for wet waste covers. They do not distinguish adequately between temporary storage ponds (e.g., for reactive ore and other materials or for

excess untreated pit water) and system designed as permanent wet cover(eg tailings ponds). Only wet cover that is part of a post closure reclamation plan would involve a possibility of perpetual treatment and among wet cover systems there are different levels of risk and considerations of effective contaminant control. So it is confusion compounded on confusion to add this exception language. Further the rule does not recognize or speak to the fact that a wet cover cannot attain neutral (or back ground) drainage for all materials in all situations. Even in situations where wet cover is the best available system for controlling contaminants, they cannot PREVENT ARD generation or toxic metals leaching. They only slow the process at best. The question always is: can a satisfactory outcome be reasonably expected for these specific materials under this specific plan in this specific location?

Response: The Department disagrees with the commenter that the rule does not provide adequate direction and safeguards regarding wet covers. The requirements for this type of cover are included in Section 24 of the rule. As stated at the December 3, 2013 deliberative session with the BEP, wet mine waste units will require effluent water treatment for an indefinite period of time, which may be less than 30 years or greater than 30 years. Given the ability of wet mine waste units to prevent acid rock drainage (reference the Global Acid Rock Drainage Guide, 2012, Section 6.6.7), the Department did not want to exclude the use of this technology. Likewise, the Department did not want to permit the use of this technology if the proper resources were not allocated to ensure its successful implementation. The Department has included language associated with wet mine waste units that may exceed the 30-year post-closure period, "…provided a Department-approved long-term monitoring and maintenance plan is in effect, and a Department-approved financial assurance mechanism is in effect for the length of term determined to be necessary by the Department." As part of any application including a wet mine waste unit, the applicant will need to propose an expected period of time post-closure that effluent water treatment will be necessary. The Department will evaluate the proposal and either accept, reject, or modify the post-closure time period for effluent water treatment. The Department believes this language provides an appropriate balance between consideration of available technologies and environmental protection. No change was made.

121. *Comment:* Not issuing permits for mine and closure plans unless they can prospectively demonstrate perpetual neutral and or background water quality and flow relying only on passive natural systems is the cornerstone of effective policy both in terms of protecting ground and surface waters and in preventing unlimited unfunded public liability. This failure to grasp perpetual treatment policy is a fatal flaw in these chapter 200 Draft regulations as amended by these 10 provisions issued for public comment on December 3. (159)

Response: The Department believes that the addition of wet mine waste units within the rule does not mean that the Department will be permitting mines requiring perpetual effluent water treatment. As stated at the December 3, 2013

deliberative session with the BEP, wet mine waste units will require effluent water treatment for an indefinite period of time, which may be less than 30 years or greater than 30 years. Given the ability of wet mine waste units to prevent acid rock drainage (reference the Global Acid Rock Drainage Guide, 2012, Section 6.6.7), the Department did not want to exclude the use of this technology. Likewise, the Department did not want to permit the use of this technology if the proper resources were not allocated to ensure its successful implementation. The Department has included language associated with wet mine waste units that may exceed the 30-year post-closure period, "…provided a Department-approved long-term monitoring and maintenance plan is in effect, and a Department-approved financial assurance mechanism is in effect for the length of term determined to be necessary by the Department." As part of any application including a wet mine waste unit, the applicant will need to propose an expected period of time post-closure that effluent water treatment will be necessary. The Department will evaluate the proposal and either accept, reject, or modify the post-closure time period for effluent water treatment. The Department believes this language provides an appropriate balance between consideration of available technologies and environmental protection.

Furthermore, with the limited exception provided for wet mine waste units, treatment of any type must be completed prior to the end of the 30-year post-closure period. Passive treatment systems may still require maintenance, or in the case of constructed wetlands, rejuvenation periodically. As stated in the rule, the goal during closure and post-closure is to minimize the potential for acid rock drainage, to establish a system that needs minimum maintenance, restores the site to pre-mining conditions (to the extent practicable and feasible), and, "…that reclamation is effective and complete and self-sustaining…". The Department believes that this language addresses the concerns expressed by the commenter. No change was made.

122. *Comment:* I am writing to comment on the proposed revisions to Chapter 200. The rules protecting our environment will be "relaxed" I object to giving the mining entity 30 years to return the site to pre-mining conditions. "wet cover" waste management techniques can go on indefinitely. "Wet cover" equals waste water ponds. This change would permit waste water ponds to create a sacrifice zone that will continue to pollute surrounding areas forever. Maine as we know it will no longer exist if open pit mining is allowed to pollute the land and animal habitats for the monetary profit of a few. I urge you to fulfill your responsibilities as stewards of the environment for our grandchildren, and their grandchildren. (66, 67)

Response: The Department believes that the addition of wet mine waste units within the rule does not mean that the Department will be permitting mines requiring perpetual effluent water treatment. As stated at the December 3, 2013 deliberative session with the BEP, wet mine waste units will require effluent water treatment for an indefinite period of time, which may be less than 30 years or greater than 30 years. Given the ability of wet mine waste units to prevent acid

rock drainage (reference the Global Acid Rock Drainage Guide, 2012, Section 6.6.7), the Department did not want to exclude the use of this technology. Likewise, the Department did not want to permit the use of this technology if the proper resources were not allocated to ensure its successful implementation. The Department has included language associated with wet mine waste units that may exceed the 30-year post-closure period, "…provided a Department-approved long-term monitoring and maintenance plan is in effect, and a Department-approved financial assurance mechanism is in effect for the length of term determined to be necessary by the Department." As part of any application including a wet mine waste unit, the applicant will need to propose an expected period of time post-closure that effluent water treatment will be necessary. The Department will evaluate the proposal and either accept, reject, or modify the post-closure time period for effluent water treatment. The Department believes this language provides an appropriate balance between consideration of available technologies and environmental protection. No change was made.

123. The commenters recommend that the Board require clean-up of mining wastes within 10 years of mine closure. (4, 21)

Response: The rule revisions posted for public comment did not propose any changes to the 30-year post-closure period except for wet waste management units. Therefore this comment is not relevant to this posting. However the Department notes that the rule establishes financial assurance mechanisms that assure that money will be available to monitor and maintain a mine site through post-closure until such time that the Department determines there is no further risk to the environment. No change was made.

124. *Comment:* The DEP had asked for a thirty-year maximum cleanup period; the new proposal allows for indefinite extensions, in twenty year-increments, at the department's discretion. Controlling the length of cleanup is a function of mine design. Allowing a mine to be designed for indefinite cleanup inevitably shifts the cost from the mining operator to the taxpayer and exponentially increases the risk of water pollution from the site. (116)

Response: The Department believes that the addition of wet mine waste units within the rule does not mean that the Department will be permitting mines requiring perpetual effluent water treatment. As stated at the December 3, 2013 deliberative session with the BEP, wet mine waste units will require effluent water treatment for an indefinite period of time, which may be less than 30 years or greater than 30 years. Given the ability of wet mine waste units to prevent acid rock drainage (reference the Global Acid Rock Drainage Guide, 2012, Section 6.6.7), the Department did not want to exclude the use of this technology. Likewise, the Department did not want to permit the use of this technology if the proper resources were not allocated to ensure its successful implementation. The Department has included language associated with wet mine waste units that may exceed the 30-year post-closure period, "…provided a Department-approved

long-term monitoring and maintenance plan is in effect, and a Department-approved financial assurance mechanism is in effect for the length of term determined to be necessary by the Department." As part of any application including a wet mine waste unit, the applicant will need to propose an expected period of time post-closure that effluent water treatment will be necessary. The Department will evaluate the proposal and either accept, reject, or modify the post-closure time period for effluent water treatment. The Department believes this language provides an appropriate balance between consideration of available technologies and environmental protection. The Department did not make any change to automatically extend the 30-year post-closure period in 20-year increments as part of these changes. The ability to extend the post-closure period in up to 20-year increments is built into the framework law, and was included in the original draft of the rule. No change was made.

125. *Comment:* Once it starts, AMD can effectively sterilize an entire water system for generations to come into perpetuity A sulfide deposit in which the majority of excavated materials have an NP:AP ratio of <1 and a total sulfur>1% are universally regarded as at high risk for immediate, difficult to control long term migration not susceptible to effective control. An applicant must demonstrate that the proposed means and methods for mining (including all materials disturbed to access the ore), onsite materials management, beneficiation and closure for acid generating deposits have been effective in prevention and control of AMD/ARD in comparable deposits with similar climates and proximity to ground and surface waters. (b) Toxic metals leaching & migration to air land and water toxic metals can leach under certain know conditions via water air and land pathways created or contaminated by mining and exploration activity. All metals, including but not limited to arsenic, selenium, mercury and magnesium known to bio accumulate or which pose significant and possibly lethal harm to living organisms, are of special concern in this regard and must be considered in terms of both the toxicity of compounds produced, especially those known to persist at harmful levels and known to be bio accumulative and lethal as a result of operations, as well as the primary form of the metal (e.g. Cyanide compounds(Robert Moran)) with a view to demonstrating effective prevention and control of offsite migration.. Transport of metals and toxic metal compounds away from massive sulfides depends on physical factors that include hydrology, groundwater flow, and the degree of connectivity between groundwater and surface water environments, as well as groundwater pH, metal adsorption and colloid mobility. Where any of these toxic metals and metal compounds are present, or will be created through operations at potentially critical levels capable of causing significant harm , the applicant must (1) take account of, and show effective means and methods of preventing releases (2) show that their plans for exploration, extraction, mine and closure plans have taken account of and have demonstrated effectiveness in preventing releases away from the deposit through a competent and thorough examination of all pathways and or effective removal, including adsorption. (c) effective prevention or control of other releases which could arise from proposed exploration, mine and closure systems to air & land at levels and concentrations scientifically established to be harmful to life and habitat Again nothing in C653 2011

precludes or limits such a clear mining specific expression of the aims of the permitting process. Indeed, I see C653 2011 as expecting this. asking for this . (159)

Response: The framework law at 38 M.R.S.A. § 490-OO(2) and subchapter 3 subsection 9.B contain the requirements for application content and framework law at 38 M.R.S.A. § 490-OO(4) and subchapter 3 subsection 11 contain the criteria for permit approval. The process requires extensive baseline study, monitoring plans, characterization and conditions for transfer of ownership. No changes were made based on this change.

20(B)(3) and (4) Setbacks

126. *Comment:* The commenter contends that the public lands, ponds and lakes setbacks are arbitrary and could prevent mining development. The commenter suggests that the setbacks are redundant with other elements of the rule that are protective of the environment. The comment recommends a public lands setback of several hundred feet. (153)

Response: Many other regulatory jurisdictions apply setbacks or restrict mining altogether in resources that exhibit outstanding qualities and require higher level of protection. The Department has selected these minimum setback distances as performance standards for siting mining operations. No changes have been made as a result of this comment.

127. *Comment:* Sections 20(B) (3) and (4) which eliminates the prohibition against mining on public reserve lots and limits the setback to 1/4 mile. It is eight miles for a wind generator it should be the same if not more for mining. (117)

Response: The Department has selected these minimum setback distances as performance standards for siting mining operations. Regardless of these minimum setbacks, the Department must find that there is reasonable assurance the mining operation will not violate applicable surface water quality standards within or outside of the mining area, or groundwater standards outside the mining area. If additional setback distance is required to achieve this finding, it will be incorporated into permitting decisions. No changes have been made as a result of this comment.

128. *Comment:* AMC strongly opposes the changes to Sections 20(B)(3) and (4) that decrease the setback requirement from 1 mile to ¼ mile from some of the state's most valuable natural and recreational resources. The original intent of that section of the rules was to ensure adequate protections for national and state parks, wilderness areas, wildlife refuges and management areas, public reserved lands, and state or national historic sites, and other designated lands pursuant to 12 MRS § 598 A. These resources are important assets to the state of Maine, and should be protected as such. Arbitrarily decreasing the setback distance from 1 mile in the first draft of the rules to ¼ in the most recent draft is unnecessarily drastic. While the rules allow for the DEP to require additional setback distances based on specific projects and proposals, the

burden should not be on the DEP or third parties to show potential for harm to critical public resources. The rules should default to adequately protecting these specially designated areas from environmental risk with an adequate setback distance of at least 1 mile. If the Department allows any flexibility, it should maintain a strong setback distance, but allow the applicant to prove that unusual and extraordinary circumstances call for a shorter setback distance given the specific project conditions. The burden of proof in determining a special circumstance must be with the applicant, with the BEP maintaining the final say to approve or reject this request. (155)

Response: As with any application submitted to the Department, the burden of proof is the responsibility of the applicant. In addition, the Department must find that there is reasonable assurance the mining operation will not violate applicable surface water quality standards within or outside of the mining area, or groundwater standards outside the mining area. If additional setback distance is required to achieve this finding, it will be incorporated into permitting decisions. Also see response to Comment # 129. No changes have been made as a result of this comment.

129. *Comment:* NO mining should be allowed not 1/4 of a mile or any miles near National and state Parks, National wilderness areas, National wildlife refuges. These precious areas belong to the "people" – not just those of us who live in Maine but all those people who visit and contribute to our billion dollar plus tourism industry. (116, 117,118, 122, 127, 142, 143, 148,149, 150, 151, 154 159, 163, 167, 176,)

Response: The Department has taken this and other similar comments regarding setbacks from certain areas into consideration and has made changes to the rule, including revisions to the types of areas for which setbacks apply as well as the setback distance. The Department's proposed setbacks are intended to mitigate surface mining's effects on unusual natural areas, historic sites, scenic character and wildlife and fisheries. Contamination of any surface waters, and groundwater outside the mining areas is prohibited by statute at 38 M.R.S. § 490-OO(4) and this rule. No change was made as a result of this comment

130. *Comment:* The very broad exclusions probably require additional clarification or better definition. However, one aspect of the regulations that has not been addressed is the existing State of Maine mining claims statute which allows staking of mineral claims on state lands, including under bodies of water. How are the existing mineral and mining claims program and any existing current valid claims being handled with regard to consistency with the new Mining Regulations? Also, there needs to be a definition of Terms used in this section as well as the need to be cross references that exist in other areas of the law. (168)

Response: The Department's proposal does not prohibit exploration activities on state lands. The siting restrictions contained in section 19(B)(3) of the proposal apply only to mining activities, which are defined in the proposal to include advanced exploration and mining. These exclusions are consistent with P.L. 2011,

Chapter 653, section 30, which provides that the Department may adopt standards regarding effects on groundwater quantity, control of noise, preservation of historic sites, preservation of unusual natural areas, effects on scenic character and protection of wildlife and fisheries. While the Department's proposal restricts mining on certain state lands, this restriction is not universal, and will continue to allow mining on other state lands.

131. *Comment:* In proposed Section 20 (B)(3) and (4)(f), **t**he term, "Public reserved lands," is not defined in the rules, but is defined in 12 MRS § 1801(8) to include "[a]ll public reserved lots of the State." As we pointed out in our October 25 comments, isolated public lots are scattered throughout northern and western Maine, where most of the potential areas for mineral exploration exist and, thus, this restriction remains a potential arbitrary ban on mining various potential deposits. It is our understanding that the Board and Department intended to exclude "public reserve lots" from the list of areas subject to this restriction. See Rulemaking Fact Sheet informing public of additional comment period on certain changes which may be considered substantial changes, p.2, item 5. This change, however, doesn't accomplish this. Accordingly, **Section 20(B)(3) and (4)(f)** should be revised as follows: "Public reserved lands, but not including public reserved lots described in 12 MRS § 1801(8)(A)." Also, as written, Section 20 (B)(3)(f) effectively prohibits underground mining under all public reserve lands, which may include purchased lands, swaps, etc. Some public reserve lands may have valuable mineral deposits lying deep beneath them, but this prohibition would preclude the state from realizing royalty revenues from state reserved lands where an underground deposit extended deep under the state land boundary line, and could be mined without disturbing the surface. A prohibition against potential surface impacts to state lands is understandable. However, as with the "waters of the state" language that we commented upon earlier, this section inadvertently prohibits deep underground operations even if they might otherwise be safely conducted without impacts to the overlying lands. Lastly, in Section 20(B)(3)(e) and (4)(e),"State-owned wildlife management areas" are not defined in the rules and the Department should include the statutory citation where the list can be found. We understand these areas are defined in 12 MRS § 10109 (1). Is there a published list that can be referenced? (177)

Response: The Department has made changes to the rule to reference the appropriate statutory definitions for State-owned wildlife management areas and public reserved lots.

20(B)(3)(f) and 20(B)(3)(f) and

132. *Comment:* The term, "Public reserved lands," is not defined in the rules, but is defined in 12 MRS § 1801(8) to include "[a]ll public reserved lots of the State." As we pointed out in our October 25 comments, isolated public lots are scattered throughout northern and western Maine, where most of the potential areas for mineral exploration exist and, thus, this restriction remains a potential arbitrary ban on mining various potential deposits. It is our understanding that the Board and Department

intended to exclude "public reserve lots" from the list of areas subject to this restriction. This change, however, doesn't accomplish this. Accordingly, (f) should be revised as follows "Public reserved lands, but not including public reserved lots described in 12 MRS § 1801(8)(A)." Also, as written, Section 20 (B)(3)(f) effectively prohibits underground mining under all public reserve lands, which may include purchased lands, swaps, etc. Some public reserve lands may have valuable mineral deposits lying deep beneath them, but this prohibition would preclude the state from realizing royalty revenues from state reserved lands where an underground deposit extended deep under the state land boundary line, and could be mined without disturbing the surface. A prohibition against potential surface impacts to state lands is understandable. However, as with the "waters of the state" language that we commented upon earlier, this section inadvertently prohibits deep underground operations even if they might otherwise be safely conducted without impacts to the overlying lands. (177)

Response: In regards to mining on state owned lands, see the response to comment #130.

20(G)(2)

133. *Comment:* Please do NOT except wet waste management units! With regard to monitoring generally and findings that groundwater contamination has taken place – I'm not clear from the Rules exactly what the consequence will be for the permittee. Shouldn't this be made more explicit? (148)

Response: Given the ability of wet mine waste units to prevent acid rock drainage (reference the Global Acid Rock Drainage Guide, 2012, Section 6.6.7), the Department did not want to exclude the use of this technology. Likewise, the Department did not want to permit the use of this technology if the proper resources were not allocated to ensure its successful implementation. The Department has included language associated with wet mine waste units that may exceed the 30-year post-closure period, "…provided a Department-approved long-term monitoring and maintenance plan is in effect, and a Department-approved financial assurance mechanism is in effect for the length of term determined to be necessary by the Department." As part of any application including a wet mine waste unit, the applicant will need to propose an expected period of time post-closure that effluent water treatment will be necessary. The Department will evaluate the proposal and either accept, reject, or modify the post-closure time period for effluent water treatment. The Department believes this language provides an appropriate balance between consideration of available technologies and environmental protection.

Section 22 of the rule includes required actions for the permittee if a monitoring performance standard is not met (ref. 22.B.14). Potential actions included increased monitoring, source investigation, corrective action, modification of activities, or other actions determined to be necessary by the Department. Corrective action requirements are contained in Subchapter 8 of the rule.

No change was made.

134. *Comment:* This section again allows mines requiring perpetual wastewater treatment, which NRCM opposes. (163)

Response: The Department believes that the addition of wet mine waste units within the rule does not mean that the Department will be permitting mines requiring perpetual effluent water treatment. As stated at the December 3, 2013 deliberative session with the BEP, wet mine waste units will require effluent water treatment for an indefinite period of time, which may be less than 30 years or greater than 30 years. Given the ability of wet mine waste units to prevent acid rock drainage (reference the Global Acid Rock Drainage Guide, 2012, Section 6.6.7), the Department did not want to exclude the use of this technology. Likewise, the Department did not want to permit the use of this technology if the proper resources were not allocated to ensure its successful implementation. The Department has included language associated with wet mine waste units that may exceed the 30-year post-closure period, "…provided a Department-approved long-term monitoring and maintenance plan is in effect, and a Department-approved financial assurance mechanism is in effect for the length of term determined to be necessary by the Department." As part of any application including a wet mine waste unit, the applicant will need to propose an expected period of time post-closure that effluent water treatment will be necessary. The Department will evaluate the proposal and either accept, reject, or modify the post-closure time period for effluent water treatment. The Department believes this language provides an appropriate balance between consideration of available technologies and environmental protection. No change was made.

135. *Comment:* The Maine standards do not appear to be tied to specific metrics and it appears that this creates a non-workable situation. (168)

Response: This comment does not specifically address a standards or situation that would be non-workable. No changes were made based on this comment.

136. *Comment:* Reactive waste storage 30 years. The use of active or passive treatment methods must be limited to no more than 30 years post-closure. Except for wet waste management units, the collection, treatment and disposal methods must be designed to ensure that discharges to affected areas must meet water quality standards without requiring treatment as soon as practicable, but in no case greater than 30 years post-closure. The Permittee must design mine waste units storage facilities capable of operating without such treatment after that time. As worded and in the context of all amendments and the rule as whole including this amendment, this amendment undermines rather than adds to natural resources protection. Same commentary as above for (9(D)12 But would add that: (a) Treatment and Care are different. Post closure Care & monitoring is mandated by statute for a minimum period of 30 years for all closure plans and is usually low

cost regular inspection just to make sure all is working as intended and the closure is performing according to expectations. Treatment, whether active or passive means an ongoing system needed to effectively control post closure emissions from the mine materials . Two different things and confusion throughout the rule on this. (b) a passive long term treatment system which can demonstrate effective permanent control of contaminants from mine wastes has no time limit; it treats all by itself into perpetuity. But it may still need the 30 year minimum post care maintenance as required by statute and it may take some active reengineering or repairs post closure to get it to work properly. The only issue is whether it can be demonstrated effective in achieving control of contaminants and maintaining natural flow for the specific materials in the specific design proposed by applicant is the particular location. (c) if a mine(or advanced exploration) and closure plan prospectively evidences that a self-sustaining neutral drainage closure is attainable, but as a result of post permit unexpected waste volumes or waste characteristics it becomes apparent that achieving that standard at closure, as required by the permit, may not be possible, a short term reliance on active treatment might be appropriate under certain specified conditions on a case by case basis as a change to the permit. The short term reliance shouldn't be planned as part of the closure though, it should be more like a change order.(e.g. . Greens Creek (Alaska), a comparable deposit to Bald Mountain in terms of total risk (but with more neutralizing potential) will take an estimated 7 years post closure but was permitted with an expectation of immediately neutral closure). Appropriate wording might be, "at the Department's discretion and as supported by kinetic tests or other reliable modeling , the Department may amend the permit to authorize a short term reliance on active post closure active treatment systems where essential and where neutral self-sustaining drainage is still attainable" What can happen is that the actual volume of waste materials or their ARD generating toxic metals leaching potential is different than predicted. To a point that affects the planned/expected performance of the waste unit at closure. If the permitted performance can be accommodated with a very short term reliance on active post closure treatment without affecting or increasing the uncertainty of long term performance of the unmodified system, for a very brief time it should be allowed. However, it should be clear that an additional onsite unit may be required or offsite storage for any waste management needs that greatly exceed what was planned and approved. The Department should never agree to any change that prevents attainment of long term self-sustaining neutral drainage or reduces the certainty of attaining that. The burden for exceedances and short falls in planning and engineering should fall entirely to the applicant. Contingencies should always be considered In engineering especially for a permanent post closure plan. (d) If active water treatment was required during operation for any waste management unit it may under some conditions be appropriate to REQUIRE the applicant to keep the water treatment active in standby mode as was done for the Eagle mine in Michigan "The water treatment system will remain in operation for 5 years into the post-closure period (approximately year 17) as part of the contingency plan for the underground mine." {Kennecott Eagle Minerals Company's Mining and Reclamation Plan, 7.4.1.8 Water Treatment System,

http://www.michigan.gov/documents/dnr/MiningandReclamationPlan_186442_7.pdf

Response: The Department believes that the addition of wet mine waste units within the rule does not mean that the Department will be permitting mines requiring perpetual effluent water treatment. As stated at the December 3, 2013 deliberative session with the BEP, wet mine waste units will require effluent water treatment for an indefinite period of time, which may be less than 30 years or greater than 30 years. Given the ability of wet mine waste units to prevent acid rock drainage (reference the Global Acid Rock Drainage Guide, 2012, Section 6.6.7), the Department did not want to exclude the use of this technology. Likewise, the Department did not want to permit the use of this technology if the proper resources were not allocated to ensure its successful implementation. The Department has included language associated with wet mine waste units that may exceed the 30-year post-closure period, "…provided a Department-approved long-term monitoring and maintenance plan is in effect, and a Department-approved financial assurance mechanism is in effect for the length of term determined to be necessary by the Department." As part of any application including a wet mine waste unit, the applicant will need to propose an expected period of time post-closure that effluent water treatment will be necessary. The Department will evaluate the proposal and either accept, reject, or modify the post-closure time period for effluent water treatment. The Department believes this language provides an appropriate balance between consideration of available technologies and environmental protection.

The Department is not permitting mines requiring perpetual treatment. As stated at the December 3, 2013 deliberative session with the BEP, wet mine waste units will require treatment for an indefinite period of time, which may be less than 30 years or greater than 30 years. Given the ability of wet mine waste units to prevent acid rock drainage (reference the Global Acid Rock Drainage Guide, 2012, Section 6.6.7), the Department did not want to exclude the use of this technology. Likewise, the Department did not want to permit the use of this technology if the proper resources were not allocated to ensure its successful implementation. The Department has included language associated with wet mine waste units that may exceed the 30-year post-closure period, "…provided a Department-approved long-term monitoring and maintenance plan is in effect, and a Department-approved financial assurance mechanism is in effect for the length of term determined to be necessary by the Department." The Department believes this language provides an appropriate balance between consideration of available technologies and environmental protection.

As stated in the rule, the goal during closure and post-closure is to minimize the potential for acid rock drainage, to establish a system that needs minimum maintenance, restores the site to pre-mining conditions (to the extent practicable and feasible), and, "…that reclamation is effective and complete and self-sustaining…". The rule has provisions for post-closure monitoring and

maintenance, along with contingency provisions as well as corrective action requirements if determined to be necessary. The Department believes that this language addresses the concerns expressed by the commenter.

No change was made.

136A. *Comment:* Active and passive post closure systems should be specifically defined and separate mining specific performance standards established. (i) active refers usually to waste water treatment or other mechanical systems that require full time staffing to operate. (a) No mine and closure plan should be approved which requires indefinite dependence on active treatments systems. (b) active systems are typically and appropriately used only during exploration or advanced explorations activities e.g. for treatment of excess pit , mine or process water prior to discharge . active systems should only be allowed during active onsite exploration and mining operations (ii) passive refers to treatment and control systems which operate on natural (i.e. biological) self-sustaining systems of contaminant control including the rate of release. Only passive systems should be allowed post closure as the principal post closure plan for any materials with an ongoing risk of contaminant generation . No man made materials (e.g. synthetic liners or covers)with less than a demonstrated endless lifetime performance should be allowed as a principal component of any post closure plan. (159)

Response: The Department has added a definition for 'active treatment' to the rule which states, "Active treatment system or active treatment means a system that treats water or wastewater with the active addition of chemical reagents or the application of external energy." Passive treatment system was previously defined. With the limited exception provided for wet mine waste units, treatment of any type must be completed prior to the end of the 30-year post-closure period. Passive treatment systems may still require maintenance, or in the case of constructed wetlands, rejuvenation periodically. As stated in the rule, the goal during closure and post-closure is to minimize the potential for acid rock drainage, to establish a system that needs minimum maintenance, restores the site to pre-mining conditions (to the extent practicable and feasible), and, "…that reclamation is effective and complete and self-sustaining…". The Department believes that this language addresses the concerns expressed by the commenter. No change was made.

137. *Comment:* The board has not listened to the public's plea for more stringent regulations, especially as it applies to a 10 year post closure period, zero ground water contamination within the mining site and financial site remediation security demanding 100% up front trust fund backing to return the site to its pre-mining condition. I can only conclude that these proposed rules, with their amendments, are too onerous to implement and must be rejected by Maine's legislature. (22)

Response: The rule revisions posted for public comment did not propose any changes to the 30-year post-closure period except for wet waste management

units. Therefore this comment is not relevant to this posting. However the Department notes that the rule establishes financial assurance mechanisms that assure that money will be available to monitor and maintain a mine site through post-closure until such time that the Department determines there is no further risk to the environment.

With the limited exception provided for wet mine waste units, treatment of any type must be completed prior to the end of the 30-year post-closure period. Passive treatment systems may still require maintenance, or in the case of constructed wetlands, rejuvenation periodically. As stated in the rule, the goal during closure and post-closure is to minimize the potential for acid rock drainage, to establish a system that needs minimum maintenance, restores the site to pre-mining conditions (to the extent practicable and feasible), and, "…that reclamation is effective and complete and self-sustaining…". The Department believes that this language addresses the concerns expressed by the commenter.

The rule requires 100% funding before removal, exposure or processing of overburden, waste rock or ore. There is more than one way to ensure that this occurs however. In the mining rule the use of either a trust fund or a letter of credit was viewed as a good balance between those commenters who wanted more options for the mining companies to begin operations and those commenters who wanted the full cost of the mine to be financially covered only in a trust fund before mining began.

The rule also requires routine monitoring and maintenance provisions, including Department notification within 24 hours of not meeting a compliance standard. Each mining area will be monitored.

No change was made.

Section 20 (L)

138. *Comment:* NRCM appreciates the addition of this section, which will improve protection of public health and the environment from mining-induced air pollution. However, the Board should define the term "significantly" in the first paragraph. (163)

Response: The Department has amended Section 20(L) of its proposal to state that "Mining operations shall not discharge air contaminants into the ambient air in such manner as to violate 38 M.R.S. §§ 585, 585-B or 585-K." We believe that this language, which is consistent with statute at 38 M.R.S. § 591, will be protective of the environment and public health and safety. In addition, the Department has amended its proposal to include explicit fugitive dust emission control requirements and opacity limits in section 20(C).

139. *Comment:* I feel this section is ambiguous and inadequate. Many of the potential minerals, such as arsenic, cadmium, and lead are potent toxins. Also sulfuric acid produced by oxidation of exposed sulfur from mining activities and cyanide that can be used to precipitate out metals are potent toxins. Particulate matter (PM2.5 and PM10) will be produced by mining, processing, and transport activities. 20 (L) (b) should include cumulative risk to humans. I am also concerned that adequate monitoring techniques may not be used since at the November meeting it was inferred that visual determination of emissions (of opacity? - EPA Method 9 or 22?) may be used. However, while that may work for a single source such as an emission from a stack, it will be inadequate in a diffuse operation of mining, processing, storage and transport. There needs to be specific determination of speciation, concentration and for particulate matter, the average aerodynamic diameter. Since mining operations frequently are a 24 hour operation, the air quality monitoring must be also. Since there is a 30 year period to remediate with additional 20 year extensions ad infinitum for wet cover, this section must specify that air monitoring will continue during these periods also. (122)

Response: The Department's proposal establishes specific opacity limits for fugitive dust based on rules at 06-096 CMR 101. The air quality requirements contained within section 20(L) of the proposal are consistent with those for other sources and prohibit the discharge of air contaminants causing a violation of the Maine ambient air quality standards as established in statute at 38 M.R.S.§ 584-A and the Department's Chapter 110 Ambient Air Quality Standards rules. The proposal also prohibits mining operations from violating any emission standards established by the Board to limit emissions of air contaminants pursuant to 38 M.R.S. 585, or hazardous air pollutants pursuant to 38 M. R. S. 585-B.

In addition, section 22(B)(17) of the Department's proposal contains the following air quality monitoring provisions:

(17) Air monitoring.

(a) Air emissions, including fugitive emissions, shall be monitored in accordance with a plan approved by the Department.

(b) If at any time during operation, closure or post-closure for the mining operation, the monitoring demonstrates that the performance standards are not being met, a corrective action plan must be implemented, the details of which must be specified or approved by the Department.

No changes were made as a result of this comment.

140. *Comment:* Ms. Labell expressed general concerns regarding any proposed mine impacts on air emissions, property values, acid rock drainage, potential cyanide leaks, and the potential for leaking waste unit liners. (134)

Response: The Act and this Chapter contain extensive measures to prevent and control pollution from mining activities. No changes were made based on this specific comment.

141. *Comment:* The commenter contends that the proposed air emissions standard could make it impossible to build a mine in the state. The commenter contends that the section is confusing and redundant to existing air quality regulations. (153)

Response: The Department has amended Section 20(L) of its proposal to state that "Mining operations shall not discharge air contaminants into the ambient air in such manner as to violate 38 M.R.S. §§ 585, 585-B or 585-K." We believe that this language, which is consistent with statute at 38 M.R.S. § 591, will be protective of the environment and public health and safety. In addition, the Department has amended its proposal to include explicit fugitive dust emission control requirements and opacity limits in section 20(C).

142. *Comment:* I appreciate the improvements in air monitoring and air pollution prevention contained in these proposed changes. . (2, 3, 6, 8, 10, 11, 12, 13, 14, 15, 17, 23, 24, 25, 26, 27, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53 ,54, 55, 56, 57, 59, 60, 73, 75, 76, 77, 82, 83, 85, 94, 101, 112, 113, 114, 120, 123, 126, 135, 146, 147, 160, 173, 175, 180, 181)

Response: The Department recognizes the commenters' support. No changes were made as a result of this comment.

143. *Comment:* Attachment 7: Section 20(L) regarding air quality, is commendable but lacks substance specific to the metallic mining industry. This should require specific identification of, and accountability for dangerous airborne elements to both the public and the work force. (117)

Response: The Department's proposal establishes specific opacity limits for fugitive dust based on rules at 06-096 CMR 101. The air quality requirements contained within section 20(L) of the proposal are consistent with those for other sources and prohibit the discharge of air contaminants causing a violation of the Maine ambient air quality standards as established in statute at 38 M.R.S.§ 584-A and the Department's Chapter 110 Ambient Air Quality Standards rules. The proposal also prohibits mining operations from violating any emission standards established by the Board to limit emissions of air contaminants pursuant to 38 M.R.S. 585, or hazardous air pollutants pursuant to 38 M. R. S. 585-B.

With respect to fugitive dust, these emissions are usually controlled through work practices that include the application of calcium chloride, along with sweeping, paving, watering or other best management practices for control of fugitive emissions. The effectiveness of these practices in controlling fugitive emission has been demonstrated on a large number of sites in Maine and other states.

Air quality guidelines and standards for workplace exposure to air contaminants is addressed by the Occupational Safety and Health Administration. No changes were made as a result of this comment.

144. *Comment:* The language included is "off the shelf" general air contamination language and not mining specific as mandated by "the mining statute". (159)

Response: The Department's proposal is consistent with the approval criteria contained in statute at 38 M.R.S. § 490-OO(4)(B). No change was made as a result of this comment.

145. *Comment:* Air Quality – you mentioned monitoring air pollution from mining by controlling fugitive dust through "sweeping" (whatever that means), paving, and watering. These types of monitoring appear to be totally inadequate. To actually control any type of pollutants/particulates from escaping a mining site, a giant dome would have to be built over the area to contain the pollutants, small vents drawing in air from the outside would have to be incorporated into the dome. This type of air pollution protection is obvious not feasible nor are any of the ones that you've proposed. The air pollution from mining would add significantly to Maine's already bad air and cause thousands of new asthma patients. This would be the best case scenario. The worst would be damage to lungs and other vital organics from diseases such as cancer. (167)

Response: The Department's proposal establishes specific opacity limits for fugitive dust based on rules at 06-096 CMR 101. The air quality requirements contained within section 20(L) of the proposal are consistent with those for other sources and prohibit the discharge of air contaminants causing a violation of the Maine ambient air quality standards as established in statute at 38 M.R.S.§ 584-A and the Department's Chapter 110 Ambient Air Quality Standards rules. The proposal also prohibits mining operations from violating any emission standards established by the Board to limit emissions of air contaminants pursuant to 38 M.R.S. 585, or hazardous air pollutants pursuant to 38 M.R.S. § 585-B.

With respect to fugitive dust, these emissions are usually controlled through work practices that include the application of calcium chloride, along with sweeping, paving, watering or other best management practices for control of fugitive emissions. The effectiveness of these practices in controlling fugitive emission has been demonstrated on a large number of sites in Maine and other states. No changes were made based on this comment.

146. *Comment:* The Maine standards do not appear to be tied to specific metrics and it appears that this creates a non-workable situation. (168)

Response: The Department's proposal establishes specific opacity limits for fugitive dust based on rules at 06-096 CMR 101. The air quality requirements

contained within section 20(L) of the proposal are consistent with those for other sources and prohibit the discharge of air contaminants causing a violation of the Maine ambient air quality standards as established in statute at 38 M.R.S.§ 584-A and the Department's Chapter 110 Ambient Air Quality Standards rules. The proposal also prohibits mining operations from violating any emission standards established by the Board to limit emissions of air contaminants pursuant to 38 M.R.S. 585, or hazardous air pollutants pursuant to 38 M. R. S. 585-B. No changes were made based on this comment.

147. *Comment:* This proposed standard is overly prohibitive and could be an unintended ban on surface mining in Maine. Bear in mind that under the Mining Act and the proposed rules, an applicant must already demonstrate in the permitting process that it will not unreasonably adversely affect air quality, 38 MRS § 490-OO.4(B), Chapter 200.11.A(2)(a), and if established air emissions licensing thresholds are met, an applicant must obtain an air license. 38 MRS § 490-NN.1, Chapter 200.4.A. Maine's Air Protection and Improvement Law, 38 MRSA §§ 581 et seq., requires DEP to adopt and implement regulations to ensure ambient air quality standards are met. DEP has promulgated regulations that ensure protection of ambient air quality standards and establish air licensing thresholds and standards. DEP's air regulations apply to all affected sources in the State, including mining. Thus, an additional air quality standard applicable only to mining, such as that set forth in the first sentence of section 20(L), is not needed at all. Furthermore, the addition of the initial distinct standard, namely "no air contaminant shall appear in the atmosphere in concentrations significantly above the background level," would be a new standard that is problematic and we believe an impossible standard to satisfy. Nor is any industrial or commercial operation in Maine, including borrow pits and rock quarries, held to such a stringent and unreasonable standard. Maine's air statutes and rules are written such that sources cannot exceed ambient air quality standards. Under DEP's air rules, sources must not contribute to a violation of ambient air quality standards in the atmosphere beyond the production area of the source. The use of the term "atmosphere" in the proposed rule could be interpreted to mean that air quality standards must be met at the exit of a stack or vent. Obviously, this is impossible. Another example is that the language indicates standards must be met at all elevations above mining activities, which would include excavation, material handling and dirt roads. One can imagine that air quality 6 inches above these activities would not meet ambient air quality standards on occasion. Additionally, a source could increase impacts by a "significant" amount above background but still be well below ambient air quality standards – this is typically the result for almost all sources in the State. But, under the proposed language, a mine could not operate if it caused such an impact. Thus, we believe the changes indicated by our suggested edits in the attached detailed comments are consistent with Maine's Mining Act and would avoid imposition of unreasonable new air standards on mining activities. Finally, if a fugitive emissions standard is desired, the Department should borrow from ones already in statute that have worked successfully for borrow pits and rock quarries. 38 MRS §§ 490-D (13), 490-Z (12): "Dust generated by activities at the excavation site, including dust associated with traffic to and from the excavation site, must be

controlled by sweeping, paving, watering or other best management practices for control of fugitive emissions. Dust control methods may include the application of calcium chloride, providing the manufacturer's labeling guidelines are followed. The department may not grant a variance from the provisions of this subsection. Visible emissions from a fugitive emission source may not exceed an opacity of 20% for more than 5 minutes in any one-hour period." (177)

Response: The Department has amended Section 20(L) of its proposal to state that "Mining operations shall not discharge air contaminants into the ambient air in such manner as to violate 38 M.R.S. §§ 585, 585-B or 585-K." We believe that this language, which is consistent with statute at 38 M.R.S. § 591, will be protective of the environment and public health and safety. In addition, the Department has amended its proposal to include explicit fugitive dust emission control requirements and opacity limits in section 20(C).

22. Monitoring and Reporting Requirements

148. *Comment:* I also appreciate that the Board will require mining companies to meet the same provisions Maine requires for solid waste landfill monitoring well location. . (2, 3, 6, 8, 10, 11, 12, 13, 14, 15, 17, 23, 24, 25, 26, 27, 33, 34, 35, 36, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 49, 50, 51, 52, 53 ,54, 55, 56, 57, 59, 60, 73, 75, 76, 77, 82, 83, 85, 94, 101, 112, 113, 114, 120, 123, 126, 135, 146, 147, 160, 173, 175, 180, 181)

Response: No changes were made in response to these comments.

149. *Comment:* Monitoring and reporting requirements of Section 22. In particular, placement and location of monitoring wells. When mining a mountain, it is obvious that a downhill gradient should be taken into consideration, monitoring well positions will need to be changed with the progression of the development to maintain accurate data. (117)

Response: Potential changes in gradient during the mining operation must be assessed as part of the baseline work plan (Section 9(C), particularly 9(C)(4)(e)) and environmental impact assessment (Section 9(G)). No change was made.

150. *Comment:* Among these 10 amendments, which purportedly complete the chapter 200 rule, two insignificant changes requested by legislators and environmental groups were included (the 100 ft. down gradient monitoring wells , and the constant monitoring of certain elements) . These two changes accommodating public input don't however add In any significant way to preventing contaminant releases so are not principal additions to natural resources protection. The addition of a definition and language on accountability to contamination is appropriate but again not a substantial improvement in natural resources protection. (159)

Response: Unregulated discharges of pollutants to groundwater within mining areas are allowed by 38 MRS490-OO(4)(D), although these discharges may not "cause a direct or indirect discharge of pollutants into surface waters or discharge groundwater containing pollutants into surface waters that results in a condition that is in nonattainment of or noncompliance with the standards in article 4-A or section 414-A or 420" (38 MRS 490-OO(4)(E)). The proposed rule is consistent with these requirements and with the groundwater quality requirements of 38MRS Article 4-A to the extent those are not restricted for this type of development by 38 MRS490-OO(4)(D). The Department may not enforce stricter groundwater quality standards without statutory authorization. No change was made.

151. *Comment:* Section 22 monitoring wells 100 ft. Down gradient and continuous monitoring of certain parameters (The Department may require continuous monitoring of certain parameters, including but not limited to water depth, specific conductance, pH, temperature, and dissolved oxygen) are concessions to the written comments of some environmental groups but neither improve the section on monitoring nor improve protection of natural resources. In fact the language already in place was better than the proposed 100 ft. down gradient change. I believe this emerged for language for landfills but it is not appropriate mining specific language even for the siting of impact monitoring wells. Benchmarks. The Permittee shall propose to the Department for approval, as part of the permit application, benchmarks indicative of statistically significant change from baseline conditions for each parameter at each monitoring point, and where appropriate, for specific time periods such as hydrologic season. The Department may accept these for use or require different benchmarks, limits, or other performance criteria, based on its review of the data and site conditions. The benchmarks should be part of the rule and the corrections and actions triggered should be clearly indicated. It's absurd to have the applicant specify benchmarks. Even the use of the term "permittee" here suggests wrong thinking. Benchmarks are pre permit not post permit. They apply to all applicants (I previously testified (Oct 28th written) that the rules suffered from a confused and confusing use of permittee applicant throughout.) (159)

Response: Unregulated discharges of pollutants to groundwater within mining areas are allowed by 38 MRS490-OO(4)(D), although these discharges may not "cause a direct or indirect discharge of pollutants into surface waters or discharge groundwater containing pollutants into surface waters that results in a condition that is in nonattainment of or noncompliance with the standards in article 4-A or section 414-A or 420" (38 MRS 490-OO(4)(E)). The proposed rule is consistent with these requirements and with the groundwater quality requirements of 38MRS Article 4-A to the extent those are not restricted for this type of development by 38 MRS490-OO(4)(D). The Department may not enforce stricter groundwater quality standards without statutory authorization. No change was made.

152. *Comment:* The added requirement for the use of continuous monitoring systems and the placement of compliance monitoring wells at no more than 100 feet from the mining activity is arbitrary and does not seem practical or justified. Same for the

arbitrary groundwater and surface water monitoring for 30 years following closure and extending in increments of 20 years is excessive. On the Establishment of baseline conditions it is unclear how much advanced time is required? (168)

Response: Continuous monitoring systems are routinely used at several sites regulated by the Department and in many other jurisdictions, and have been standard monitoring technology for many years. The post-closure monitoring period may be modified by the Department, following review of post-closure data, to a lesser period by Section 24(B)(5).No change was made.

153. *Comment:* The commenter recommends that the rules allow for monitoring for compliance at the boundary of the mining area as defined rather than at each of the mining elements. (153)

Response: The compliance criteria described in Section 22 are consistent with the statutory requirements of 38 MRS 490-OO(4)(D) and (E). No change was made.

154. *Comment:* Section 22(B)(a): As I stated in my comments to the first draft of the rules I think it is important for there to be provision for an independent party to review the application and performance of the permittee. (148)

Response: The Department has the authority to hire any expertise that it feels it needs. No change was made to the rule.

155. *Comment:* Section 22(B)(1)(a) NRCM supports this proposed change, which makes the mining rules consistent with Maine's solid waste rules. (163)

Response: The compliance criteria described in Section 22 are consistent with the statutory requirements of 38 MRS 490-OO(4)(D) and (E). No change was made.

156. *Comment:* Section 22(B)(1)(a) (Water Quality Monitoring). **This** section remains problematic due to the Department's focus on establishing compliance points at the boundaries of separate "mining operations" instead of at the boundary of the "mining area," which is the proper statutory term used for compliance determinations in the Mining Act. 38 MRS §490-QQ (3) ("as close as practicable to any mining area"); 38 MRS §490-OO.4.D ("discharges may not result in contamination of groundwater beyond each mining area"). The use of the proper term "mining area" is important, because it includes water management treatment systems, and is a carefully defined term in the Mining Act. 38 MRS §490-MM.12; Chapter 200.2.BBB. Moreover, the requirement of compliance at the boundary of individual mining operations "as they exist at the time any sample is collected" and within areas that are "proposed and approved for future use or stripped and graded or otherwise prepared for future construction" is unreasonable and not consistent with the Mining Act. Please note our concern lies not in the location of monitoring wells, but in the location of compliance points. As noted in our October 25 comments on this topic (see p. 3 of cover letter to Mr. Crawford and pp. 37-38 of Detailed Commentary), the stated compliance

requirement may present both an unrealistic and unachievable situation, especially for modern mines that try to minimize overall footprints and environmental impacts by consolidating or abutting operational elements to save space, and thus may have closely-spaced open pits or abutting underground workings that are geologically interconnected. While regularly monitoring groundwater conditions both within and surrounding a "mining area" is important to gain an understanding of potential contaminant generation and groundwater movement, compliance points should be established at the boundary of the mining area, or at the very least at the boundary of an approved final extraction area's limit, not within it. In addition, and importantly, determining the baseline (pre-mining) groundwater conditions over the entire site will be critical to ensure a reasonable compliance benchmark is established, especially where pre-mining baseline conditions already exceed groundwater quality standards. The compliance section of the Rules (Section 22.B(9)) allow the Permittee to propose the benchmarks to be established for evaluating statistically significant changes in water quality. This is a critical aspect. As currently worded, this section essentially could require water quality compliance within an orebody, which may be unachievable unless the benchmarks properly reflect un-mined water quality degradation within and surrounding the entire orebody. Modern underground and surface mines are carefully designed to sequentially extract waste rock and ore from defined and expanding areas over time, in a manner that will meet optimal engineering, safety, economic, and environmental requirements. These areas and expansions are presented by the Applicant as part of the mine plan that is submitted to and approved by the Department. Depending on the orientation and geology of the deposit, the mining methods and sequence of extraction may take many forms, including expansion of a pit in one or several directions either simultaneously or in a planned succession. Underground operations, in particular, may have multiple working faces and tunnel development in several locations to efficiently extract ore. By requiring compliance within areas that are planned and approved to be mined, the Applicant may face ongoing non-compliance unless the compliance benchmarks appropriately reflect elevated contaminant levels that exist before mining begins. To remain consistent with Act, we suggest rewording section (i) to read: "The points to be monitored for compliance with the groundwater standards for the purposes of 38 M.R.S. § 490-MM(5) are the downgradient boundaries of the final dimensions of all mining ~~operations~~ areas as defined in the approved mining plan ~~as they exist at the time any sample is collected~~. In addition, in B(1) (a), please replace "mining operations" with the proper statutory term, "mining area," in all places where it appears. (177)

Response: The compliance criteria described in Section 22 are consistent with the statutory requirements of 38 MRS 490-OO(4)(D) and (E). With specific regard to natural conditions not consistent with applicable water-quality criteria, the existing language in 38 MRS Article 4-A is clear. The requirements of 38 MRS 465-C would be part of the applicable groundwater quality standards outside of any mining area. These require, in part, that groundwater be "free of radioactive matter or any matter that imparts color, turbidity, taste or odor which would impair usage of these waters, other than that occurring from natural

phenomena"(38 MRS 465(C)(1), emphasis added), so that, outside of any mining area, for any criterion which did not already meet the requirements for use in a public water supply (see 38 MRS 465(C)(1)) under predevelopment conditions, any further degradation of groundwater quality would be a violation of the rule. Similarly, 38 MRS 464(4)(C), which applies in all areas of the site, states that "Where natural conditions, including, but not limited to, marshes, bogs and abnormal concentrations of wildlife cause the dissolved oxygen or other water quality criteria to fall below the minimum standards specified in sections 465, 465-A and 465-B, those waters shall not be considered to be failing to attain their classification because of those natural conditions", although further degradation of the applicable criterion or criteria could be considered a violation. No change was made.

157. *Comment:* 22(B)(1)(a)(i) This section remains problematic due to the Department's focus on establishing compliance points at the boundaries of separate "mining operations" instead of at the boundary of the "mining area," which is the proper statutory term used for compliance determinations in the Mining Act. 38 MRS §490-QQ (3) ("as close as practicable to any mining area"); 38 MRS §490-OO.4.D ("discharges may not result in contamination of groundwater beyond each mining area"). The use of the proper term "mining area" is important, because it includes water management treatment systems, and is a carefully defined term in the Mining Act. 38 MRS §490-MM.12; Chapter 200.2.BBB. Moreover, the requirement of compliance at the boundary of individual mining operations "as they exist at the time any sample is collected" and within areas that are "proposed and approved for future use or stripped and graded or otherwise prepared for future construction" is unreasonable and not consistent with the Mining Act. Please note our concern lies not in the location of monitoring wells, but in the location of compliance points. As noted in our October 25 comments on this topic (see p. 3 of cover letter to Mr. Crawford and pp. 37-38 of Detailed Commentary), the stated compliance requirement may present both an unrealistic and unachievable situation, especially for modern mines that try to minimize overall footprints and environmental impacts by consolidating or abutting operational elements to save space, and thus may have closely-spaced open pits or abutting underground workings that are geologically interconnected. While regularly monitoring groundwater conditions both within and surrounding a "mining area" is important to gain an understanding of potential contaminant generation and groundwater movement, compliance points should be established at the boundary of the mining area, or at the very least at the boundary of an approved final extraction area's limit, not within it. In addition, and importantly, determining the baseline (pre-mining) groundwater conditions over the entire site will be critical to ensure a reasonable compliance benchmark is established, especially where pre-mining baseline conditions already exceed groundwater quality standards. The compliance section of the Rules (Section 22.B(9)) allow the Permittee to propose the benchmarks to be established for evaluating statistically significant changes in water quality. This is a critical aspect. As currently worded, this section essentially could require water quality compliance within an orebody, which may be unachievable unless the benchmarks properly reflect un-mined water quality degradation within and

surrounding the entire orebody. Modern underground and surface mines are carefully designed to sequentially extract waste rock and ore from defined and expanding areas over time, in a manner that will meet optimal engineering, safety, economic, and environmental requirements. These areas and expansions are presented by the Applicant as part of the mine plan that is submitted to and approved by the Department. Depending on the orientation and geology of the deposit, the mining methods and sequence of extraction may take many forms, including expansion of a pit in one or several directions either simultaneously or in a planned succession. Underground operations, in particular, may have multiple working faces and tunnel development in several locations to efficiently extract ore. By requiring compliance within areas that are planned and approved to be mined, the Applicant may face ongoing non-compliance unless the compliance benchmarks appropriately reflect elevated contaminant levels that exist before mining begins. To remain consistent with Act, we suggest rewording section (i) to read: "The points to be monitored for compliance with the groundwater standards for the purposes of 38 M.R.S. § 490-MM(5) are the downgradient boundaries <u>of the final dimensions</u> of all mining ~~operations~~ <u>areas as defined in the approved mining plan</u> ~~as they exist at the time any sample is collected~~. In addition, in B. (1) (a), replace "mining operations" with the proper statutory term, "mining area," in all places where it appears.(177)

Response: The compliance criteria described in Section 22 are consistent with the statutory requirements of 38 MRS 490-OO(4)(D) and (E). With regard to specific performance criteria, Section 22 (10), (12), and (16) state that the Department is not required to accept the performance criteria proposed by the applicant, but may identify other specific criteria or conditions requiring corrective action. With specific regard to natural conditions not consistent with applicable water-quality criteria, the existing language in 38 MRS Article 4-A is clear. The requirements of 38 MRS 465-C would be part of the applicable groundwater quality standards outside of any mining area. These require, in part, that groundwater be "free of radioactive matter or any matter that imparts color, turbidity, taste or odor which would impair usage of these waters, <u>other than that occurring from natural phenomena</u>"(38 MRS 465(C)(1), emphasis added), so that, outside of any mining area, for any criterion which did not already meet the requirements for use in a public water supply (see 38 MRS 465(C)(1)) under predevelopment conditions, any further degradation of groundwater quality would be a violation of the rule. Similarly, 38 MRS 464(4)(C), which applies in all areas of the site, states that "Where natural conditions, including, but not limited to, marshes, bogs and abnormal concentrations of wildlife cause the dissolved oxygen or other water quality criteria to fall below the minimum standards specified in sections 465, 465-A and 465-B, those waters shall not be considered to be failing to attain their classification because of those natural conditions", although further degradation of the applicable criterion or criteria could be considered a violation.

158. *Comment:* **<u>Section 22(B)(2)(6)</u>** The Board should define the term "development rock". (163)

Response: The term "development rock has been removed from the rule and replaced with the term "mine waste" which has been defined in the rule.

159. *Comment:* **Section 22(B)(2)(10)** The term "benchmark" is unclear. Also, the applicant should not choose its own compliance levels. The department should assign compliance levels for any contaminants. (163)

Response: The Department has revised Section 22 to clarify how performance standards are established at the site. With regard to specific performance criteria, Section 22 (10), (12), and (16) state that the Department is not required to accept the performance criteria proposed by the applicant, but may identify other specific criteria or conditions requiring corrective action.

160. *Comment:* **Section 22(B)(2)(14)** The Board should require mining companies to take confirmation samples immediately after an exceedance, not within seven days. There is no reason to wait seven days. (163)

Response: Specific requirements for confirmation resampling will be established as part of the monitoring plan to be submitted with the application and approved by the Department (Sections 9(J) and 22). In general, confirmation resamples are appropriate only for media in which relevant criteria at the sampling point are expected to change slowly, such as groundwater due to its low velocity in most natural conditions, and reflect requirements to collect necessary sampling equipment and remobilizing to the site. No change was made.

Section 24. Closure and Post-Closure Maintenance Standards

161. *Comment:* Section 24(B)(5) This section again allows mines requiring perpetual wastewater treatment, which NRCM opposes. (163)

Response: The Department believes that the addition of wet mine waste units within the rule does not mean that the Department will be permitting mines requiring perpetual effluent water treatment. As stated at the December 3, 2013 deliberative session with the BEP, wet mine waste units will require effluent water treatment for an indefinite period of time, which may be less than 30 years or greater than 30 years. Given the ability of wet mine waste units to prevent acid rock drainage (reference the Global Acid Rock Drainage Guide, 2012, Section 6.6.7), the Department did not want to exclude the use of this technology. Likewise, the Department did not want to permit the use of this technology if the proper resources were not allocated to ensure its successful implementation. The Department has included language associated with wet mine waste units that may exceed the 30-year post-closure period, "…provided a Department-approved long-term monitoring and maintenance plan is in effect, and a Department-approved financial assurance mechanism is in effect for the length of term determined to be necessary by the Department." As part of any application

including a wet mine waste unit, the applicant will need to propose an expected period of time post-closure that effluent water treatment will be necessary. The Department will evaluate the proposal and either accept, reject, or modify the post-closure time period for effluent water treatment. The Department believes this language provides an appropriate balance between consideration of available technologies and environmental protection. No change was made.

162. *Comment:* These proposed changes are inadequate to fix the draft mining rules. Overall, the changes make the rules significantly weaker by allowing mines requiring perpetual wastewater treatment, failing to require adequate financial assurance, and allowing mining activities near, next to, or under many of Maine's most precious natural areas. NRCM strongly urges the BEP to reject the majority of these proposed changes. (163)

Response: The Department believes that the addition of wet mine waste units within the rule does not mean that the Department will be permitting mines requiring perpetual effluent water treatment. As stated at the December 3, 2013 deliberative session with the BEP, wet mine waste units will require effluent water treatment for an indefinite period of time, which may be less than 30 years or greater than 30 years. Given the ability of wet mine waste units to prevent acid rock drainage (reference the Global Acid Rock Drainage Guide, 2012, Section 6.6.7), the Department did not want to exclude the use of this technology. Likewise, the Department did not want to permit the use of this technology if the proper resources were not allocated to ensure its successful implementation. The Department has included language associated with wet mine waste units that may exceed the 30-year post-closure period, "…provided a Department-approved long-term monitoring and maintenance plan is in effect, and a Department-approved financial assurance mechanism is in effect for the length of term determined to be necessary by the Department." As part of any application including a wet mine waste unit, the applicant will need to propose an expected period of time post-closure that effluent water treatment will be necessary. The Department will evaluate the proposal and either accept, reject, or modify the post-closure time period for effluent water treatment. The Department believes this language provides an appropriate balance between consideration of available technologies and environmental protection.

The rule requires 100% funding before removal, exposure or processing of overburden, waste rock or ore. There is more than one way to ensure that this occurs however. In the mining rule the use of either a trust fund or a letter of credit was viewed as a good balance between those commenters who wanted more options for the mining companies to begin operations, including options that would have provided less ready access to the funds for the state, and those commenters who wanted the full cost of the mine to be financially covered only in a trust fund before mining began.

The Department has selected minimum setback distances as performance standards for siting mining operations. Regardless of these minimum setbacks, the Department must find that there is reasonable assurance the mining operation will not violate applicable surface water quality standards within or outside of the mining area, or groundwater standards outside the mining area. If additional setback distance is required to achieve this finding, it will be incorporated into permitting decisions. No changes have been made as a result of this comment to the siting provisions of the rule.

163. *Comment:* Please do NOT allow extended post-closure treatment beyond 30 years. If long-term or perpetual treatment is required because of some flaw in the mining procedures or unforeseen variable, then the permittee should bear the entire burden of this treatment. But NO mining plan should be permitted that does not guarantee at the beginning that post-closure treatment can be completed within 30 years. (148)

Response: The Department believes that the addition of wet mine waste units within the rule does not mean that the Department will be permitting mines requiring perpetual effluent water treatment. As stated at the December 3, 2013 deliberative session with the BEP, wet mine waste units will require effluent water treatment for an indefinite period of time, which may be less than 30 years or greater than 30 years. Given the ability of wet mine waste units to prevent acid rock drainage (reference the Global Acid Rock Drainage Guide, 2012, Section 6.6.7), the Department did not want to exclude the use of this technology. Likewise, the Department did not want to permit the use of this technology if the proper resources were not allocated to ensure its successful implementation. The Department has included language associated with wet mine waste units that may exceed the 30-year post-closure period, "…provided a Department-approved long-term monitoring and maintenance plan is in effect, and a Department-approved financial assurance mechanism is in effect for the length of term determined to be necessary by the Department." As part of any application including a wet mine waste unit, the applicant will need to propose an expected period of time post-closure that effluent water treatment will be necessary. The Department will evaluate the proposal and either accept, reject, or modify the post-closure time period for effluent water treatment. The Department believes this language provides an appropriate balance between consideration of available technologies and environmental protection. No change was made.

164. *Comment:* This is a reasonable addition. (177)

Response: The Department acknowledges the comment. No changes were made based on this comment.

165. *Comment:* Sections 24(B) (5), 22 (B) (7) (e) and 20 (G) (2). An initial post closure care period of 30 years implies that the technology is not available to protect Maine and its citizens in a shorter period of time. That does not inspire any confidence in claims of modern or advanced mining techniques that are now

being employed which would justify a change in the existing regulation. 20 year increments that can go on forever concerning wet cover is even more disconcerting because the technology to quickly and effectively remediate these collections of toxins obviously does not currently exist. The technology proposed to be used should be independently certified to effectively, safely and quickly remediate mining sites or a certificate must not be issued. Or more practically, revisions to Chapter 200 should be revisited only after mining techniques are truly modernized. As above with Section 17, adequate monies need to be guaranteed to be available for the entire time frame. (122)

Response: The Department believes that the addition of wet mine waste units within the rule does not mean that the Department will be permitting mines requiring perpetual effluent water treatment. As stated at the December 3, 2013 deliberative session with the BEP, wet mine waste units will require effluent water treatment for an indefinite period of time, which may be less than 30 years or greater than 30 years. Given the ability of wet mine waste units to prevent acid rock drainage (reference the Global Acid Rock Drainage Guide, 2012, Section 6.6.7), the Department did not want to exclude the use of this technology. Likewise, the Department did not want to permit the use of this technology if the proper resources were not allocated to ensure its successful implementation. The Department has included language associated with wet mine waste units that may exceed the 30-year post-closure period, "…provided a Department-approved long-term monitoring and maintenance plan is in effect, and a Department-approved financial assurance mechanism is in effect for the length of term determined to be necessary by the Department." As part of any application including a wet mine waste unit, the applicant will need to propose an expected period of time post-closure that effluent water treatment will be necessary. The Department will evaluate the proposal and either accept, reject, or modify the post-closure time period for effluent water treatment. The Department believes this language provides an appropriate balance between consideration of available technologies and environmental protection. The Department did not make any change to automatically extend the 30-year post-closure period in 20-year increments as part of these changes. The ability to extend the post-closure period in up to 20-year increments is built into the framework law, and was included in the original draft of the rule. No change was made.

166. Comment – the 30 year period seems arbitrary. (168)

Response: The framework law, 490-QQ.3, established the 30-year post-closure period. The 30-year period is also consistent with RCRA closure requirements. No change was made.

167. *Comment:* Wet waste should not be an ongoing issue. Why would we want short term gain for long term handling of waste? I wish mining was not even a consideration in this beautiful state. However, since it is, let's make it as safe as possible now and for the future. (161)

Response: The Department believes that the addition of wet mine waste units within the rule does not mean that the Department will be permitting mines requiring perpetual effluent water treatment. As stated at the December 3, 2013 deliberative session with the BEP, wet mine waste units will require effluent water treatment for an indefinite period of time, which may be less than 30 years or greater than 30 years. Given the ability of wet mine waste units to prevent acid rock drainage (reference the Global Acid Rock Drainage Guide, 2012, Section 6.6.7), the Department did not want to exclude the use of this technology. Likewise, the Department did not want to permit the use of this technology if the proper resources were not allocated to ensure its successful implementation. The Department has included language associated with wet mine waste units that may exceed the 30-year post-closure period, "…provided a Department-approved long-term monitoring and maintenance plan is in effect, and a Department-approved financial assurance mechanism is in effect for the length of term determined to be necessary by the Department." As part of any application including a wet mine waste unit, the applicant will need to propose an expected period of time post-closure that effluent water treatment will be necessary. The Department will evaluate the proposal and either accept, reject, or modify the post-closure time period for effluent water treatment. The Department believes this language provides an appropriate balance between consideration of available technologies and environmental protection. No change was made.

Pre-evaluation of Mining Sites

168. *Comment:* Furthermore, you have never focused on the need for careful pre-evaluation of a mining site to determine whether it is a "go" or "no go." To assume that opening a mine is a given and that the present proposed rules will reduce or eliminate risk is "head in the sand" reasoning. (128)

Response:

Mining Application

169. *Comment:* The commenter suggests that the proposed rules create a "front-loaded" process that requires almost a complete engineering design at the time of application. The commenter suggests that conceptual issues should be determined and agreed to by all parties prior to initiating the detailed design of the mine. The commenter recommends a preliminary approval process based on a conceptual site design prior to detailed engineering to allow a mining developer to interact with the Department early in the planning process. (153)

Response: Generally pre application meetings with the Department and pre submission meetings with the public help a potential applicant determine general regulatory or public impressions of their project. These help the applicant make further changes before filing an actual application. It is however important that the Department have actual concrete plans to base any regulatory review and decisions upon. Therefore the Department declined to make this change.

Tier 1 and Tier 2 Exploratory Activities

170. *Comment:* Finally, you caved in to Irving when you redefined Tier 1 and Tier 2 exploratory activities, which will allow a significant mine to be developed without oversight, environmental impact assessment, limits on the size of the legally pollutable mining area, as revealed by Lew Kingsbury. If Mr. Kingsbury is correct, this is nothing more than a blatant attempt at extracting the high value gold in the Gossan Cap under a mining permit which was meant for exploratory activities only. (128, 157,176)

Response: The Department has amended its proposal to clarify that all mine waste is included in the tonnage limits for either Tier One or Tier Two advanced exploration activities. With respect to the 5,000 ton limit on bulk sampling, the Department's proposal is consistent with the tonnage limits in the existing Chapter 200 and in other political jurisdictions. The definition of "mine waste" has been revised to state: "Mine waste" means all material, including but not limited to, overburden, rock, lean ore, leached ore, or tailings that in the process of mining and beneficiation has been exposed or removed from the earth during advanced exploration~~,~~ and mining activities.

Section 30. Violations

171. *Comment:* Irving et al complained that the Department's rights to order a stop of any action or commission any corrective action violated due process. Site of development Law specifically recognizes the need for, and provides for the use of, police power. The mining statute requires this same standard In the mining rule. It was not an exemption. This amendment establishes a lesser standard of natural resources protective authority than was previously provided and a lesser standard than applies to less risky regulated activities. It makes no sense. (159)

Response: The rule was changed to include "or any other statutory authority" to those which the Department can utilize when pursuing enforcement action. In addition the due process comments were addressed by a new Section 33, Enforcement and Compliance Orders Issued under this Chapter." These two changes address the commenter's concern as well as the "due process" concern expressed by the referenced commenter.

SECTION 33

172. *Comment:* The 48 hour requirement is not sufficient in length. (168)

Response: The 48 hours was changed to 7 working days as requested.

173. *Comment:* The addition of this section is appreciated to address due process concerns that have been commented on. We do, however, recommend a few changes:

This section appears intended to apply only to compliance or enforcement orders issued under Chapter 200. But there first will be a License order issued under this chapter, which would be subject to normal appeal procedures set forth in 38 MRS §§ 344 (2-A) and 346 and DEP chapter 2.24. Thus, in the exception clause in paragraph A we recommend adding the following after the word "section": "and a license order issued pursuant to the Act and this Chapter for which the appeal procedure is set forth in 38 MRS §§ 344 (2-A) and 346 and DEP chapter 2.24,"; In paragraph C, first sentence, 48 hours is a very short time period to request a hearing from the Board and could easily be missed. We recommend the words "within 48 hours" be changed to "within 7 working days."; In paragraph C, second sentence, given that the Board is made up of volunteer citizens most of whom have full time jobs, asking them to hold a hearing "within 7 working days" seems ambitious. We would suggest either "within 14 [or 21] working days." (177)

Response: A note was added to the rule which addresses license orders of the Commissioner. The 48 hours was changed to 7 working days as requested. The suggestion to hold a hearing within 14 working days was added to the rule.

174. *Comment:* This section appears intended to apply only to compliance or enforcement orders issued under Chapter 200. But there first will be a License order issued under this Chapter, which would be subject to normal appeal procedures set forth in 38 MRS §§ 344 (2-A) and 346 and DEP chapter 2.24. Thus, in the exception clause in paragraph A we recommend adding the following after the word "section": "and a license order issued pursuant to the Act and this Chapter for which the appeal procedure is set forth in 38 MRS §§ 344 (2-A) and 346 and DEP chapter 2.24," (177)

Response: A note was added to the rule which addresses license orders of the Commissioner.

175. *Comment:* In paragraph C, first sentence, 48 hours is a very short time period to request a hearing from the Board and could easily be missed. We recommend the words "within 48 hours" be changed to "within 7 working days."(177)

Response: The 48 hours was changed to 7 working days as requested.

176. *Comment:* In paragraph C, second sentence, given that the Board is made up of volunteer citizens many of whom have full time jobs, asking them to hold a hearing "within 7 working days" seems ambitious. We would suggest either "within 14 [or 21] working days." (177)

Response: The suggestion to hold a hearing within 14 working days was added to the rule.

General Comments

Economic Benefit

177. *Comment*: The other issue that needs to be further fleshed out is what amount of jobs and other economic benefits ought to be guaranteed by mining concerns as a condition for being allowed mine and cause potential and substantial risk of damage to the environment. It is important because of the extremely exaggerated and unsubstantiated claims about employment opportunities associated with mining tendered by mining entities both in the case of Bald Mountain, and elsewhere. (179)

Response: See response below.

178. *Comment*: I'm writing to express my opinion that whatever minerals the mountain hold are far less valuable (especially in the long run) than the water, air and soil around them, and all the life thus supported. Gold and silver can make somebody rich, but poison-polluted water, land and air will make ALL of us poorer for many, many years to come. I urge you to take the long view, and protect our beautiful state from destruction by a few greedy people. (133)

Response: These two comments do not pertain to the Chapter 200 changes posted for public comment by the Board of Environmental Protection on December 3, 2013. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. The framework law does not provide that the rules must or should require information on the number of mining related jobs. Subchapter 3 subsection I requires the applicant to submit a mine plan for consideration in processing the application that will address all aspects of the mining activity, including beneficiation. No changes were made based on this comment.

Rulemaking Process

179. *Comment*: The commenter contends that issues raised in their initial comments remain unaddressed in the recent revision of the rule. The commenter recommends that 1) Public Notice provisions within the draft rules include tribal notification, 2) tribal consultation be required regarding tribal historic/ archaeological resources, 3) all tribal lands be included in the list of resources provided a one-mile buffer from mining activity, and 4) tribes be considered eligible for intervenor status given the potential for significant impacts to resources of great importance to tribal cultural traditions and practices. (1)

Response: This comment does not directly pertain to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. This rulemaking process adhered to all statutory requirements of 38 M.R.S.A. § 341-H, 38 M.R.S.A. § 341-D, and 5 M.R.S.A. § 8051, *et seq*., and included public notice and posting of the draft changes to the rule on the DEP's website for proposed rulemaking. Comments received regarding tribal matters were considered and are

addressed in the basis statement prepared for comments on the initial draft rule posted on September 5, 2013. No changes were made based on this comment.

180. *Comment*: It is also clear that the Board has overstepped its authority in amending these rules in several instances by ignoring pertinent statutes in other provisions of Maine State law which already provide guidance. The best example is the attempt to eliminate the prohibition against mining on public reserve lots and to limit the mining setback to ¼ mile from certain public resources. (22)

Response: This comment does not directly pertain to the Chapter 200 changes posted for public comment by the Board of Environmental Protection on December 3, 2013. This rulemaking process adhered to all statutory requirements of 38 M.R.S.A. § 341-H, 38 M.R.S.A. § 341-D, and 5 M.R.S.A. § 8051, *et seq*., and included public notice and posting of the draft changes to the rule on the DEP's website for proposed rulemaking. Technical changes to the rule, such as changes to the siting criteria, were made following appropriate and legal process that included opportunity for public involvement. No changes were made based on this comment.

181. *Comment*: A clear unambiguous statement of the basic principles and aims of any rule is a minimum standard. For a rule governing activities capable of massive permanent loss of entire water system, Earth's most precious resource, that is imperative. This rule doesn't even attempt that. Indeed, it would seem both the DEP & the BEP have avoided that with not only intent but determination. This rule was released to "interested parties", including Bowker Associates, a few weeks ahead of its general release via transmission to the BEP in early September. Bowker Associates immediately registered concern on both its structure and content submitting a lengthy example of readily available mining specific performance standards that were available to the DEP and not referred to or employed in drafting the rule. Mr. Crawford replied that DEP "is not taking comments at this time". The rule, with no significant change, went to BEP for rulemaking in early September. Bowker Associates immediately on public announcement that the rule would be on the calendar for the September BEP meeting, wrote a letter addressed to the entire Board c/o Ruth Burke asking that the rule not be accepted and resending the analysis sent to Crawford Cynthia Bertocci responded that the Board would " not be taking written comment at the meeting "that I had to appear in person to speak to the BEP (although BEP and DEP are well aware of my post aggressive cancer treatment disability generally precluding public appearance) BEP refused to forward my letter addressed to each member of the Board. According to Ms. Bertocci, only the Chairman received it and it was not in the folder of each Board member at the hearing where the rules were presented for rulemaking. Four months of BEP deliberations have only made the rule less protective of natural resources, less mining specific, less clear on policy. It is clear that DEP and BEP will not heed any of these concerns again disregarding the overwhelming public demand for greater accountability to natural resources protection. They will act as they apparently have throughout only to insure that all that was promised will be delivered to JD Irving. This entire experience

indicates that the BEP itself needs major reforms (1) a governor should never control the majority of appointment to any Board, especially this one pre vetted with 4 new appointees committed to JD Irving's agenda and not to the public interest comprising a majority. (2) the BEP has no independence from control over DEP. It must be able to commission its own expert opinion outside of DEP or have its own discretionary funds to do so within the DEP budget. (3).The Governor's Executive Order requiring prior approval of all rules issued for comment effectively nullified agency independence provided through the Administrative Procedure Act on rule making. This must be statutorily corrected. This gives effective executive veto and affords opportunity for political and corporate influence that has been clearly present in this rulemaking at every stage (4) The BEP must have a more open accessible and transparent rulemaking process that at a minimum (a) provides better accommodation for remote participation by persons with disability or even by working people unable to afford the luxury and expense of a day off and a log journey for in person participation; (b) provides live remote streaming for press & other interested parties on issues of potentially massive and catastrophic environmental impact' (C) provides a complete record of every proceeding posted immediately after each rule making session. **This rule should not be adopted by the BEP and it is absolutely clear it will be adopted anyway. DEP's writing of the rules has from the outset systematically, and with apparent determination, avoided clear policy and clear regulations which do not grant permits for activities that cannot prospectively demonstrate adequate contaminant control.** We who care for Maine's natural resource and who work for wise well informed law and policy will look to**, the legislature to reject these rules, and order a different better informed and more transparent process for building a rule, and hopefully a new statute, that can and must achieve this standard**. The Governor can determine what the legislature gets to vote on but he can't override a rejection of the rules. The system that produced the statute itself and this rule as amended by these 10 additions has shown that it is not capable of producing what is needed to provide informed and workable protections to natural resources and protections against unlimited unfunded public liability. So beyond rejecting this rule if it is put forward in its proposed form, I hope the legislature will delay implementation of the mining statute itself by at least 6 months so that better Informed guidance can be sought on whether to start over or simply edit C 653 2011 and its attending Chapter 200 rules. And Mr. Crawford, just on a personal basis, one day I would like to hear your account of your role in all this. (159)

Response: This comment does not directly pertain to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. This rulemaking process adhered to all statutory requirements of 38 M.R.S.A. § 341-H, 38 M.R.S.A. § 341-D, and 5 M.R.S.A. § 8051, *et seq*., and included public notice and posting of the draft changes to the rule on the DEP's website for proposed rulemaking. No changes were made based on this comment.

182. *Comment*: I object to the very awkward and inconvenient timing of the public comment deadline. I have not been able to locate written response to public

comments already received. How is the public to know and trust the rationale for the Department or the Board's response to their concerns if written public comments are not easily available? (176)

Response: This comment does not directly pertain to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. This rulemaking process adhered to all statutory requirements of 38 M.R.S.A. § 341-H, 38 M.R.S.A. § 341-D, and 5 M.R.S.A. § 8051, *et seq*., and included public notice and posting of the draft changes to the rule on the DEP's website for proposed rulemaking. No changes were made based on this comment.

183. *Comment*: We urge the Board to strengthen these rules as indicated above, and to provide an opportunity for the public to comment on anticipated changes from DEP staff to address the definition of "mining area". (150)

Response: This comment does not directly pertain to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. This rulemaking process adhered to all statutory requirements of 38 M.R.S.A. § 341-H, 38 M.R.S.A. § 341-D, and 5 M.R.S.A. § 8051, *et seq*., and included public notice and posting of the draft changes to the rule on the DEP's website for proposed rulemaking. Comments received regarding the definition of "mining area" and tribal matters were considered and are addressed in the basis statement prepared for comments on the initial draft rule posted on September 5, 2013. No changes were made based on this comment.

General Support of Rule

184. *Comment*: The Modernization of Maine's Mining Rules for metallic mining is a path to supporting economic development with reasonable environmental standards. The Maine Department of Environmental Protection has a staff of knowledgeable and professional individuals who can administer these new regulations. In the past we have had metallic mining operations that the taxpayers have had to clean up. At the time they were operating we had limited environmental regulations or oversight. These proposed regulations while not perfect are a good start to setting performance standards, design criteria and financial assurances to allow reasonable metallic mineral mining. By maximizing environmental protection while having regulatory flexibility, these operations can have minimal impacts while providing economic growth. (131)

Response: The Department acknowledges support for the draft rule. No changes were made based on this comment.

General Opposition to Weakening Maine's Mining Rules

185. *Comment*: The commenter expressed general opposition to the rules that weaken mining restrictions in Maine (9, 61, 65, 66, 90)

Response: The Department acknowledges opposition to the draft rule; however no specific proposed changes were stated. No changes were made based on this comment.

186. *Comment*: The DEP has posted 10 "significant changes" to their draft rules which implement recent statutory changes to Chapter 200 Metallic Mineral Exploration, Advanced Exploration and Mining requesting public comment on their content. Having sat through all of the Board's recent metallic mining rule making hearings and been witness to the deliberations of the board on the Chapter 200 changes, it is clear that the overall intent of these changes is to further relax regulations on the metallic minerals mining industry. (22)

Response: This comment does not pertain to specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The purpose of the rule is to ensure environmental standards will be achieved and that the activity does not pose a threat to human health. No changes were made based on this comment.

187. *Comment*: I teach teachers in a Science education program that works to connect the dots on what is happening in our world. One of their fall assignments has been to find the closest Superfund Site near their school. It is always incredulous to them to discover that there is not only a site near them, but that it has come about because of terrible military practices, or the result of industry polluting and then moving on leaving the mess for the bioregional citizens and taxpayers to clean up. Teachers continually write in their essays that they are ashamed that our government is so lax in regulations, and so willing to compromise a safe environment for the profits of industry and multinational corporations. When is this going to stop they ask? I ask you … when is this going to stop? Given what is still going on at the Callahan Superfund site in Brooksville, Maine, I don't think we should allow another open pit mine in Maine until there are new rules insuring that taxpayers don't pick up the tab. Especially in the case of Irving, a Canadian corporation with a terrible environmental reputation. Your job is to protect citizens from predators such as these. (32)

Response: This comment does not pertain to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. No changes were made based on this comment.

188. *Comment*: I live in the Blue Hill Peninsula area, the site of 2 Super Fund sites, one in Blue Hill, the Kerramerican Mine and the other, the Callahan Mine, in Brooksville. Although both mines are quite old, 35+ years, they continue to be toxic, necessitating monitoring and clean up funds borne by the taxpayers. These two sites illustrate the devastating history of mineral mining-- "old as the hills" --and sadly repeated in many parts of our country. We know what mineral mining does. It damages the

environment and when the mine is played out, the mess is left behind. With good regulations (which Maine did have) we can avoid continuing this environmental tragedy. Our beautiful rivers and streams, the Brooke trout and our communities deserve protection. Although mining advocates claim that "new technologies" will protect water quality, they have not identified a single sulfide mine that has been operated without polluting downstream waters. Maine doesn't need to be the experimental white mouse of the mining industry. (38)

Response: This comment does not pertain to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. This is consistent with the Department's mission statement. This rulemaking process adhered to all statutory requirements of 38 M.R.S.A. § 341-H, 38 M.R.S.A. § 341-D, and 5 M.R.S.A. § 8051, *et seq*. No changes were made based on this comment.

189. *Comment*: From my perspective (a tax paying citizen close to 60 years), the EPA & BEP's first & foremost responsibility is "protecting and restoring Maine's natural resources and enforcing the state's environmental laws". The Mission "is to prevent, abate and control the pollution of the air, water and land. The charge is to preserve, improve and prevent diminution of the natural environment of the State. The Department is also directed to protect and enhance the public's right to use and enjoy the State's natural resources. The Department administers programs, educates and makes regulatory decisions that contribute to the achievement of this mission." Therefore I see no way you can allow open pit mining or weaken present mining laws. It is not your mission or responsibility to side with corporations or businesses- particularly if they are not Maine based or constitute Maine citizens. I want to share with you what happens when mining laws are weak and don't protect Maine citizens or it's natural resources. My husband & I are both healthcare providers here in Maine living a few hours boat ride from the Callahan Mine. That open pit mine was only open for 4yrs., closing in '72 and to this day is still contaminating the saltwater in that area and has been now for 46 yrs. Having grown up on Penobscot Bay I knew enough not to take shellfish from that area but we discovered that friends and patients of ours have been using that spot to harvest mussels and feed them to their families since they moving to Maine some 10yrs ago. We tried to impress upon them the dangers of eating from these contaminated waters. That the effects of ingesting metals tends to show up long term and is thought to contribute to cancer & auto immune diseases which are presently rampart. If you were to boat to the area, the harbor is beautiful & sheltered and is a destination spot with adjacent conservation lands nearby. The effects of that mine are a travesty to the surrounding area. This should never have happened and I know at some point our tax dollars were spent in effort thru 'superfunds' to clean up the area which has been only partially successful. In summary, open pit mining is costly for Maine's citizens both economically and health wise. Furthermore it is destructive to the environment and Maine's natural resources. I

ask you to attend to your responsibilities as listed on the web site & the Mission statements. (62)

Response: This comment does not pertain to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. No changes were made based on this comment.

190. *Comment*: Nature must come before profits. I thought the job of Maine DEP was to protect the environment and the people from bad plans like this? (63)

Response: This comment does not pertain to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The framework law at 38 M.R.S.A. § 490-NN(1)(B) *requires* the Board to adopt rules to carry out its duties under the Act. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. No changes were made based on this comment.

191. *Comment*: Please do not change mining laws. They were put in place to protect the people of this beautiful state. (70)

Response: This comment does not pertain to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. The framework law at 38 M.R.S.A. § 490-NN(1)(B) *requires* the Board to adopt rules to carry out its duties under the Act. No changes were made based on this comment.

192. *Comment*: Please do not allow the proposed changes to go into effect. The new rules are just too lax. We need to hold polluters more responsible not less. Please do what you can to be a part of the solution. (71)

Response: This comment does not pertain to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. The framework law at 38 M.R.S.A. § 490-NN(1)(B) *requires* the Board to adopt rules to carry out its duties under the Act. No changes were made based on this comment.

193. *Comment*: I urge you not to make any concessions to Irving Oil regarding their plans to conduct mining operations on Bald Mountain in Aroostook County. No amount of environmental degradation is acceptable to me, and I feel we already inadequately protect our natural resources. I am opposed to any changes to current law that will in any way add to the degradation. I count on you to represent me in these matters. (72)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The purpose of the rule (this is a Department rule, not a State law) is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. The framework law at 38 M.R.S.A. § 490-NN(1)(B) *requires* the Board to adopt rules to carry out its duties under the Act. No changes were made based on this comment.

194. *Comment*: Please do not allow the Maine mining rules to be weakened. There are so many stresses on the waters of Maine certainly another is not needed. Keep the ground water safe and the lakes as pristine as they currently are. (74)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. The rule does not allow contamination of surface water or contamination of ground water beyond each mining area. This is consistent with the framework law at 38 M.R.S.A. § 490-OO(4)(D). No changes were made based on this comment.

195. *Comment*: I send this in opposition to the proposed changes in Maine's mining regulations that will greatly weaken our ability to protect our watersheds and Maine's wild brook trout. I am an active member of Trout Unlimited and have a passion for fly fishing for brookies, browns and landlocked salmon in Maine's wonderful rivers and streams. The potential mining sites threaten some of Maine's most important trout and salmon rivers: Bald Mountain at the headwaters of the Fish and Aroostook Rivers; Ledge Ridge at the headwaters of the Magalloway; Alder Pond on the North Branch of the Dead River; Katahdin Iron Works on the West Branch Pleasant River, and several more along Maine's coast where I live. (79)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is

adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. The rule does not allow contamination of surface water or contamination of ground water beyond each mining area. This is consistent with the framework law at 38 M.R.S.A. § 490-OO(4)(D). No changes were made based on this comment.

196. *Comment*: The DEP has a decision to make on whether to protect our natural resources from environmental destruction or to allow metallic mining where environmental cleanup costs have been left for Maine citizens. Maine citizens already are burdened with cleanup costs from other metallic mining sites in Maine. Please read your Mission statement and focus on the "PREVENT THE POLLUTION OF THE AIR, WATER AND LAND." "The charge is to preserve, improve and prevent diminution of the natural environment of the State." Maine citizens have overwhelmingly opposed changes in the Metallic Mining Law. Maine must keep strong environmental laws and not change laws to benefit corporations. (80)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. The rule does not allow contamination of surface water or contamination of ground water beyond each mining area. This is consistent with the framework law at 38 M.R.S.A. § 490-OO(4)(D). No changes were made based on this comment.

197. *Comment*: There are very good reasons why we have laws in place on open pit mining in Maine. One two-word reason: Callahan Mine. I would urge you to reconsider relaxing these regulations just in the interest of encouraging business in Maine, especially in this case, in which a company from outside the country will come in and reap all the rewards, and then hand the people of Maine the clean-up bill! This would be disastrous and short-sighted and I strongly oppose it! (86)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The framework law at 38 M.R.S.A. § 490-NN(1)(B) *requires* the Board to adopt rules to carry out its duties under the Act. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. No changes were made based on this comment.

198. *Comment*: Maine is one of the few remaining states gifted with large pristine sections of unblemished wilderness. Slowly, Mainers are beginning to realize not only the cultural but the economic value of this asset. I see Maine as the site of greatly increased recreational activity in this century. With the prospect of curtailed

emissions from coal burning generating plants in the Midwest, we can look forward to a reduction in the acid rainfall that has contaminated our lakes and streams for years. Now that we are on the verge of making very significant progress in improving and protecting our state's environment, it seems foolhardy to open up our wilderness areas to another major source of pollution. It goes without saying that Maine has struggled economically in recent years. We need to attract more sound business development that will provide good jobs for our citizens. The fact that we have potentially valuable mineral deposits should not be overlooked. But if we are to extract these assets, the bottom line, long term net value of this activity will not prove beneficial if we sacrifice the value of our real estate for short term gain. (88)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The framework law at 38 M.R.S.A. § 490-NN(1)(B) *requires* the Board to adopt rules to carry out its duties under the Act. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. No changes were made based on this comment.

199. Maine's mining rules need to be strengthened- NOT weakened to protect our waters, woods, and wildlife from mining pollution. (89)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The framework law at 38 M.R.S.A. § 490-NN(1)(B) *requires* the Board to adopt rules to carry out its duties under the Act. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. No changes were made based on this comment.

200. *Comment*: Experience all over this country, including Maine with the nation's only intertidal metals mine (Callahan Mine) that resulted in a Superfund site that is costing our citizens millions to clean up and will never be totally restored, shows that metal mines are worked by their owners until they are no longer profitable – and then abandoned. The result is a changed environment that is damaged literally for geologic time periods, not just tens or hundreds or even thousands of years. Maine's mining rules need to be strengthened - NOT WEAKENED - to protect our waters, woods and wildlife from mining pollution. (91)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The framework law at 38 M.R.S.A. § 490-NN(1)(B) *requires* the Board to adopt rules to carry out its duties under the Act. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a

threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. No changes were made based on this comment.

201. *Comment*: I think it's common sense that we need to do everything possible to protect our environment. People need clean water and air to survive and it's well known that mining only destroys environments. This area is blessed with good and abundant clean water and it's up to us all to protect this valuable resource. Please do everything in your power to preserve it. (93)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. No changes were made based on this comment.

202. *Comment*: I am writing to express my concern that serious, long-term environmental problems may be created by the advent of more mining in Maine. From the reading I have done, the pollution mining can cause can last for a very long time, and be very expensive to mitigate. Please strengthen the mining rules proposed last year, and by all means do not weaken them. The state and its people have too much to lose, if steps are not taken now to make certain we are protected from this danger. (96)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. No changes were made based on this comment.

203. *Comment*: I am writing to express my concern that serious, long-term environmental problems may be created by the advent of more mining in Maine. From the reading I have done, the pollution mining can cause can last for a very long time, and be very expensive to mitigate. Please strengthen the mining rules proposed last year, and by all means do not weaken them. The state and its people have too much to lose, if steps are not taken now to make certain we are protected from this danger. (97)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is

adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. No changes were made based on this comment.

204. *Comment*: We need strong rules to protect our waters, woods and wildlife from mining pollution. The strong rules are also needed to prevent cleanup from ill managed sites and that will cost the tax payers. Please do not weaken the mining laws in Maine and help to keep our natural areas protected from pollution for folks and wildlife to enjoy and to ensure that the surrounding areas have safe drinking water. (98)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. No changes were made based on this comment.

205. *Comment*: We need to protect the environment, not weaken the rules we already have to suit mining companies. You must be unaware of their environmental record in terms of accidents, deaths, pollution of streams and rivers and disinterest in miner safety. Please strengthen our rules. (99)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. No changes were made based on this comment. However, it is noted that the rule requires the applicant to submit information pertaining to environmental compliance history.

206. *Comment*: Rules need to be made stronger! Not weaker! (100)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. No changes were made based on this comment.

207. *Comment*: Maine's mining rules need to be strengthened! Keep our waters, woods and wildlife which are so important to Maine free from mining pollution! Please do not weaken the proposed mining rules. (103)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. No changes were made based on this comment.

208. *Comment*: Let me begin by addressing the title of your committee. It is Board of Environmental Protection. That's fairly clear and direct. Your job is to protect the environment. This suggests the environment in total and completely, all the time. The environment belongs to the state of Maine, the taxpayers of Maine. It is not the property of some corporation regardless of deeds, etc. The corporation may use that land to the extent that the environment, total and complete, of the state of Maine, of the people of Maine is not harmed. I do not wish to prevent economic progress. I simply expect that Irving Corporation should respect the right of the people of Maine to live in their homes without fear of loss of health, safety, and recreation. I expect the Board of Environmental Protection to preserve that expectation and earn the respect and trust of the people, the taxpayers of Maine. (104)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The Board has adhered to its responsibilities and duties in accordance with 38 M.R.S.A. § 341-D during this rulemaking process. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. No changes were made based on this comment.

209. *Comment:* The risks of acid run-off and water pollution in such a place as Maine with all its beautiful streams, lakes, and ponds is unthinkable. With our dependence on tourism as well as a basic need for clean water and safe recreation areas why indeed would we consider such a risk? The economic benefit of mining is tenuous and unpredictable in any case. In this ill-considered endeavor, we bargain away our real economy, tourism, for the gain of a Canadian company. Finally, let me just add that the people who live in Central, Western, and Northern Maine love these parts of Maine. Perhaps you, like the tourists, have only admired the coastal areas, the shops of Freeport, or the ease of traveling on I-95. Let me suggest that you hike into Houston Brook Falls or climb Borestone Mountain or gape at Attean Overlook or just slow down on 95 as the majesty of Katahdin suddenly rises to meet your gaze. Or on a summer's day perch in one of the Roman baths of Big Wilson Stream. Or stare into the deep loveliness of snow falling in our evergreen forests. First do those, then tell me how you can take any action which would endanger the loveliness of Maine. Respectfully I ask you to please do what your job requires of you, protect the environment of Maine, totally and completely. (104)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The framework law at 38 M.R.S.A. § 490-NN(1)(B) *requires* the Board to adopt rules to carry out its duties under the Act. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. The Board has adhered to its responsibilities and duties in accordance with 38 M.R.S.A. § 341-D during this rulemaking process. No changes were made based on this comment.

210. *Comment*: Maine's mining rules need to be strengthened - NOT weakened - to protect our waters, woods and wildlife from mining pollution. (105)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. No changes were made based on this comment.

211. *Comment*: Having taught Environmental Law and Policy in a college of business, and studied the issues involved for many years, I want to urge you not to weaken Maine's current rules regulating mining and the run-off from mining operations that results. The harm to the waters of Maine, wildlife and human health caused by any weakening of these regulations would not be justified by any incremental increase in mining that might take place. Frankly, I expect if you adopt new rules now, you will simply be raising legal issues (conflicts of interest, violating of Federal CWA requirements, etc.) that would result in many lawsuits and cost Maine legal fees in defense that would outweigh any hypothetical tax revenues or other economic benefits you might hope would come from weakening the rules. (106)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The framework law at 38 M.R.S.A. § 490-NN(1)(B) *requires* the Board to adopt rules to carry out its duties under the Act. This rulemaking process adhered to all statutory requirements of 38 M.R.S.A. § 341-H, 38 M.R.S.A. § 341-D, and 5 M.R.S.A. § 8051, *et seq*., which do not contemplate inaction on required responsibilities due to the possibility of litigation after a final rule is adopted. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. No changes were made based on this comment.

212. *Comment*: I strongly object to the weakening of Maine's Open Pit Mining Laws! These laws need to be strengthened to protect our water, land and air not weakened. Past history shows mining companies do not pay for the mess they make and leave the cleanup and bills to the public. This must not be allowed to happen in Maine! Metallic minerals are highly toxic and cleanup is extremely expensive and takes generations to complete if not forever. We are still paying for the Callahan mine cleanup from 40 years ago! With the amount of rain we get and the number of lakes and streams everywhere there is no way that toxic runoff will not occur. Our tax base is highly dependent on clean water for tourism, industry and farming. The minimal profit that the state will receive from this industry doesn't begin to cover the costs associated with the health issues alone that are caused by tiny amounts of heavy metals, never mind the environmental costs. You work for the Environmental Protection Agency. Please do your jobs as the people of Maine expect you to do without politics involved. Our children and grand-children are depending on you. (107)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The framework law at 38 M.R.S.A. § 490-NN(1)(B) *requires* the Board to adopt rules to carry out its duties under the Act. This rulemaking process adhered to all statutory requirements of 38 M.R.S.A. § 341-H, 38 M.R.S.A. § 341-D, and 5 M.R.S.A. § 8051, *et seq*. Thus, the Department and Board have diligently fulfilled their respective responsibilities and duties to develop this rule within the parameters specified in the framework law and while adhering to all applicable administrative procedure requirements. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. No changes were made based on this comment.

213. *Comment*: Maine needs stronger, not weaker, mining rules to keep our environment clean for our citizens and to keep tourists coming. The risk of pollution is too great for any perceived benefit from mining. (108)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. No changes were made based on this comment.

214. *Comment*: Since the BEP has proposed changes that would further weaken the already ineffective rules, I am asking that you to please strengthen the proposed mining rules instead. The BEP proposed changes will increase the likelihood that

Maine's environment will suffer from serious mining Pollution and that Maine taxpayers will have to pay to clean it up. Please help keep our environment pristine and a keep Maine "The "Way Life Should Be". (109)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. No changes were made based on this comment.

215. *Comment*: Please count me among those endorsing strengthening mining rules in Maine. To do anything else will be a loser for our environment and our state's image as environmentally sensitive. (110)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The Department acknowledges the commenter's support for strong mining rules. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. No changes were made based on this comment.

216. *Comment*: Please do not weaken the rules governing Maine's mining rules! Please remember it is called Vacation Land!! Protect its natural beauty, strengthen the laws now!!! (111)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The Department acknowledges the commenter's support for strong mining rules. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. No changes were made based on this comment.

217. *Comment*: On October 17, 2013, Maine Conservation Voters testified in opposition to the Chapter 200 rules drafted by the DEP. We asked you to make them stronger. We are deeply disappointed that instead of strengthening the rules, they have been weakened. These rules favor short term profit from metallic mining over protection of our most valuable water resources and we adamantly oppose them. (116)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. The Chapter 200 rule does not ignore or fail to incorporate any required environmental protection provision in State or federal law, and does not exceed the parameters established in the framework law. No changes were made based on this comment.

218. *Comment*: I am writing you to express concern about the revised Maine Mining Rules. I personally attended and spoke at the first public hearing for LD 1853 and the October 17th BEP hearing. The proposed ruling does not protect Maine waters, and it does not protect the land that has been set aside, such as Maine State Reserve Land and Maine State Parks, for future generations. It is spaces such as these that bring people to the state of Maine to live, retire and play. I firmly believe that the clean water and air of Maine is one of Maine's most valuable assets and it should remain so for all future generations. I am also extremely disappointed with the BEP's blatant disregard to the overwhelming public concern of the proposed public mining rule changes that flies in the face of overwhelming opposition. This is a democratic society, of the people, for the people and by the people, not of major corporations for major corporations! (117)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. The Chapter 200 rule does not ignore or fail to incorporate any required environmental protection provision in State or federal law, and does not exceed the parameters established in the framework law. Moreover, this rulemaking process adhered to all statutory requirements of 38 M.R.S.A. § 341-H, 38 M.R.S.A. § 341-D, and 5 M.R.S.A. § 8051, *et seq*. to consider public comment and concern on the draft rule so that these could be thoughtfully considered in finalizing a rule for adoption. No changes were made based on this comment.

219. *Comment*: I strongly urge you to obtain a third party non-affiliate mining expert that is knowledgeable in the specific site and conditions found in Maine. The revised Maine Mining Rule are not ready as it is written and ought not to pass. (117)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. It is noted, however, that Chapter 200 rule does include provisions for the Department to hire third parties to perform various tasks associated with

implementing and demonstrating compliance with the Chapter and the Act. No changes were made based on this comment.

220. *Comment*: The assault on all of us - and the environment - related to regulatory and legislative actions to weaken protections from destructive mining practices is completely unacceptable. Continued reductions in protection cannot be tolerated - by any citizen, legislator or regulatory agency in the state of Maine. (119)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The framework law at 38 M.R.S.A. § 490-NN(1)(B) *requires* the Board to adopt rules to carry out its duties under the Act. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. No changes were made based on this comment.

221. *Comment*: I have been following the news about the proposed changes in the mining laws. There are some questions no one seems to be asking. Does Maine desperately need those minerals? Will they even be used in Maine at all? If not, what is the justification for allowing the destruction of prime forest and wildlife habitat through open pit mining? The only one appears to be the opportunity for a wealthy corporation to obtain more wealth. I hope you are doing your job (and steering others to) - protecting our environment, as in Board of Environmental Protection. (121)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The framework law at 38 M.R.S.A. § 490-NN(1)(B) *requires* the Board to adopt rules to carry out its duties under the Act. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. No changes were made based on this comment.

222. *Comment*: Mining in Maine has great potential to improve our commerce and industry but also to cause serious and possibly irrevocable harm to our health, environment and financial stability. I am concerned that several of the provisions of the additional changes to Chapter 200 proposed by the Board on December 3rd are detrimental to the State and its citizens. (122)

Response: This comment does not identify any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval

specified in the framework law will be achieved. No changes were made based on this comment.

223. *Comment*: The threat of distant and persistent toxic effects of mining operations today is a very real threat that will be enhanced by the above additional proposed changes. Just recently, in the November 2013 issue of the Archives of Environmental Contamination and Toxicology (volume 65, issue 4, pp765-778) toxic metals from the Callahan mine Superfund site were found to have a far reaching effect and were still bioavailable and concentrating in the Goose Pond estuary and potentially in Penobscot Bay. The additional proposed changes can easily leave Maine and its future generations with a toxic legacy. (122)

Response: This comment does not identify any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. No changes were made based on this comment.

224. *Comment*: I would like to address the ever more pressing issue of open-pit mining in the state of Maine, a topic that will be addressed in the upcoming 2014 legislative session. As a resident of Maine, I must voice my opposition to the possible deregulation of mining rules. I am primarily concerned with health threats to the communities and wilderness surrounding Bald Mountain. In open-pit mining there is the high risk of acid mine drainage. In acid mine drainage, arsenic, lead, and sulfuric acid from an open-pit mine site seep into surrounding soil and waterways. These chemicals are known carcinogens and should not be dealt with lightly. Bald Mountain has an uncommonly high amount of sulfur and arsenic, increasing the risk for acid mine drainage. If acid drainage does occur at Bald Mountain, then not only will the beloved recreation of brook trout fishing be destroyed, but the drinking water for millions of citizens will be compromised. The history of the Callahan mine in Brooksville further illuminates the environmental and economic cost of open-pit mining, The Callahan mine operated from 1968-1972, yet 40 years later taxpayers are still paying for its cleanup. The overall cleanup of the Callahan mine is estimated to cost taxpayers $23 million, according to the Bangor Daily News. Furthermore, The Department of Environmental Protection is still finding high levels of PCBs, lead, and arsenic in the soil surrounding the site. Even though J.D. Irving claims it has the technology to safely open-pit mine Bald Mountain, according to Maine Mine Watching, the company has never ventured into this type of development before. Therefore, there is no certainty that they can successfully mine without compromising the health of the surrounding environment and communities. I urge you to reject the proposed changes to mining regulations in order to ensure that the ecological integrity of Aroostook County and the health of its citizens remain intact. In doing so, you will show the nation that Maine values the lives of its citizens above all else. (124)

Response: This comment does not identify any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. It is noted that Maine did not have specific mining environmental rules or regulations in effect when the Callahan mine was opened and operated. Thus, a comparison of effects from that mining operation to future mining operations in Maine that are conducted in compliance with this Chapter and the Act cannot reasonably be developed. No changes were made based on this comment.

225. *Comment*: Please listen to us the people who work and live here DO NOT WEAKEN OUR MINING LAWS. I attended the public hearing held in Augusta on October 17, 2013. It was 4 to 1 against the change in the laws. Why do you not get it – did you not listen to any of those well-spoken, educated and knowledgeable people? If this law is weakened the damage done as a result of it will be totally devastating to us all. Please do not let me lose any faith I have left in democracy. Listen to the PEOPLE not the bullies. (125)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The framework law at 38 M.R.S.A. § 490-NN(1)(B) *requires* the Board to adopt rules to carry out its duties under the Act. This rulemaking process adhered to all statutory requirements of 38 M.R.S.A. § 341-H, 38 M.R.S.A. § 341-D, and 5 M.R.S.A. § 8051, *et seq*., including public participation and careful consideration of all comments. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. No changes were made based on this comment.

226. *Comment*: I hope the Board of Environmental Protection will put the health of Aroostook County residents and wildlife before the requests of J.D. Irving, Ltd. The mining rules currently under review do not accomplish this. If an open-pit mine opens at Bald Mountain, arsenic and sulfuric acid would most likely leach into water sources, poisoning local aquatic life and even people. Even J.S. Cummings, the geologist who discovered the sulfide deposits at Bald Mountain, believes that the site's high arsenic levels make it too dangerous to mine. The rules currently under review do not adequately protect people or the environment. Open-pit mining would pose serious environmental risks and create an unclear number of jobs. We do not have the right to impose such ecological degradation on future generations. We have a duty to protect our natural resources and the health of local residents. The BEP should not approve the rules as they currently stand. (127)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The framework law at 38 M.R.S.A. § 490-QQ provides the performance, operation and reclamation standards which are incorporated into Chapter 200 at subchapter 5. The framework law at 38 M.R.S.A. § 490-OO(4) provides the criteria for approval which are incorporated into Chapter 200 at subchapter 3. These provisions of the Act and this Chapter are to ensure environmental standards will be achieved, that the activity does not pose a threat to human health and that there is adequate financial assurance for environmental impacts. The Board afforded careful consideration to all comments on the draft rule, making changes it determined where appropriate, before adopting the rule for legislative review. No changes were made based on this comment.

227. *Comment*: You are the "Board of Environmental Protection." Everything you have done so far mocks the purposes of your board with the only protection being granted to a foreign corporation at the expense of the environment of Maine and its citizens. (128)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. This rulemaking process adhered to all statutory requirements of 38 M.R.S.A. § 341-H, 38 M.R.S.A. § 341-D, and 5 M.R.S.A. § 8051, *et seq*., including public participation and careful consideration of all comments. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. No changes were made based on this comment.

228. *Comment*: Please do NOT loosen regulations for mining at Bald Mountain in Aroostook County. Typically mining companies exaggerate the number of jobs they will create and after a few years close down as legal entities, leaving taxpayers to clean up their mess -- as did the Callahan mine in Brooksville, still a toxic site. Maine's mining rules need to be strengthened, NOT weakened. All too often mining companies operate for a few years, then disappear, leaving taxpayers to clean up the mess. (129)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The framework law at 38 M.R.S.A. § 490-NN(1)(B) *requires* the Board to adopt rules to carry out its duties under the Act. The rule contains robust financial assurance requirements to ensure costs associated with environmental mitigation are incurred by the permittee. No changes were made based on this comment.

229. *Comment*: I am one of several students who has traveled a long distance to be able to spend the next few years studying in the State of Maine. And I'm aware that

Maine's rich outdoor heritage and natural scenic beauty played a large part in many of our decisions to come here. Now, residing in Maine, close to beautiful woods, wildlife and water bodies, I'm deeply concerned by the ecological threat posed to these environments by the proposed changes in the Metallic Mining Rules. With deregulation, several sites that are deemed too dangerous to mine because of the resulting environmental degradation would be opened up to mining companies that are all too ready to operate under laxer regulations. J.D. Irving's plans to open-pit mine Bald Mountain arises as one of the most immediate threats. Research has shown that the dangers to the environment and the cost of clean-up outweigh potential economic benefits that open-pit mining in this site could bring to the people of Maine. This is what prevented companies like Boliden and Black Hawk from mining Bald Mountain in the past. The environmental dangers and costs remain, but it appears that one of the chief reasons for the deregulation is the stream of profits it could bring to those who undertake large mining operations under little public accountability. There is little guarantee that these profits are going to trickle down to the residents of Maine. If economic revenue for the State was in fact a priority, then it would be important to consider how the destruction of large tracts of wilderness would impact tourism and employment in the State. The loss of livelihoods of those who depend on natural resources such as native brook trout for income, and the amount of taxpayers' money that would have to go into recovering from environmental damage is bound to be a concern for the average resident of Maine. The many comments that have been submitted to the Board of Environmental Protection serve as an indicator that the public would like further discourse on the matter. We look to members of the BEP and other government representatives to open up more channels of communication about such issues, and hope that any decision about the mining rules will be based on true democratic values that take into consideration the impact on the health and welfare of the public and the natural ecosystems we value. (132)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. This rulemaking process adhered to all statutory requirements of 38 M.R.S.A. § 341-H, 38 M.R.S.A. § 341-D, and 5 M.R.S.A. § 8051, *et seq*., including public participation and careful consideration of all comments. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. The framework law does not provide that the rules must or should require information on the number of mining related jobs or how profits from a private mining company are used or distributed. No changes were made based on this comment.

230. *Comment*: I appeal to the Board of Environmental Protection to withhold approval of the proposed revised Chapter 200 mining regulations as drafted, and to reconsider, in particular, provisions in the rules relaxing existing standards for treatment of wet waste that has the potential for damage to ground water and which make inadequate provision for financial responsibility for treatment and clean-up in the years following

cessation of operations. I moved to Maine 25 years ago after residing for some years on the edge of the anthracite coal mining region of Pennsylvania where, within 20 miles of my home, slag heaps, each the size of the Bingham Esker, filled the landscape for 75 miles from Scranton to Sunbury around abandoned mines, both open pit and tunneled. Beside each black and barren rubble hill was a pond of water colored a vivid orange. No vegetation grew in or near this water, no fish or amphibians lived in it. There were few mammals such as deer, raccoons, or anything else as the land was devoid of vegetation. This part of Pennsylvania has looked like this for 100 years or more and it will for another 100 years at least. There is no way to repair it until Nature can do whatever it can over time. The mining companies no longer exist as legal entities which can be held accountable for cleanup and restoration. They took the money and ran. In response to the urging of a large, non-US corporation, the State of Maine may be opening itself to the same exploitation and despoiling as was experienced in the Pennsylvania coal regions and elsewhere for the promise of employment opportunities for a small number of residents and some economic return of a percentage of the expenditures the mining company will make in securing and exporting to Canada its profits from the mining operations in the Fish River watershed of Aroostook County. But, where the proposed revised rules may encourage J. D. Irving, Inc. to invest in extracting minerals and metallic ore from Bald Mountain and where this corporation may have the resources to operate open pit mines with minimal impact on the landscape, ground water, and wildlife, the revised rules effectively gamble that this corporation and its successors, if any, will do an effective job of containing groundwater pollutants and restoring the landscape and habitat it disturbed for as much as a century after mining operations cease... especially since this is a foreign corporation which is speculating that it will find and extract minerals and metals profitably and indefinitely. Worse to me it the fact that relaxed requirements in the State's mining regulations will apply not only to J. D. Irving and the Bald Mountain operations at the headwaters of the Aroostook and Fish Rivers but to any enterprise which seeks to exploit known mineral and metal deposits near Ledge Ridge at the headwaters of the Magalloway River; Alder Pond on the North Branch of the Dead River; Katahdin Iron Works on the West Branch Pleasant River, and several more along Maine’s coast. (137)

Response: This comment does not identify any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. No changes were made based on this comment.

231. *Comment*: The problem here is that the revision of Chapter 200 is too much connected to the issue of Open Pit Mining in Bald Mountain, Aroostook County, ME. Here are some crucial points: 1) There is plenty of information that has come forth regarding open pit mining in Bald Mountain but at the very least, even the public perception that revised state rules for Chapter 200 are related to mining at Bald

Mountain taint the entire process. 2) The issue that the present mining rules make it impossible for the open pit mining business to occur in Maine also is tainting the process. I am extremely concerned that important scientific data is not being carefully considered because of this perceived issue. The idea that some areas in the state are simply not suitable for open pit mining is difficult to openly consider when at the same time you are considering that "the rules make mining impossible." 3) Lastly, I want to bring to your attention the testimony I heard on October 17 from Henry John Bear, Brenda Commander (Chief of the Houlton Band of the Maliseets), Linda Raymond and Cara O'Donnell (Water Specialist, Houlton Band of the Maliseets). Basically their messages had to do with the importance of consulting with them about the mining issue, especially in regard to Bald Mountain. This is a vital component of rewriting the mining rules that will take thoughtful consideration and time. In conclusion, I would like to respectfully request that you put a halt to this job of revising Chapter 200, The Mining Rules for the State of Maine. It is a hugely complex and important issue. Given the above considerations too much vital information will not be carefully considered causing a "fatal flaw" in the process itself. (138)

Response: This comment does not identify any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The framework law at 38 M.R.S.A. § 490-NN(1)(B) *requires* the Board to adopt rules to carry out its duties under the Act. The Board cannot simply put a halt to adopting this rule. It must, however, ensure that public participation requirements are fulfilled, which it has, and subsequently consider all data and comments (including comments during the October 17 public hearing) submitted during the public comment periods, which is has, before adopting a rule for legislative review. No changes were made based on this comment.

232. *Comment*: We are confronted with a moral issue here. In order to allow for open pit mining in Maine, specifically at Bald Mountain you need to ignore a basic fact! When you disturb the sulfur ore you create a permanent situation of acid water pollution. A situation that needs perpetual care. Why would you or anyone for that matter want to be involved in an enterprise that is at its very core disingenuous. So I add my letter to the many letters you have received and hope against hope that you advise the BEP to put a stop to this rule changing business. I am sending a letter I addressed to Mr. Foley directly addressing the issue of how your entire process is tainted by the fact that this rule changing was initiated by Irving Oil. (139)

Response: This comment does not identify any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The framework law at 38 M.R.S.A. § 490-NN(1)(B) *requires* the Board to adopt rules to carry out its duties under the Act. The Department is required to provisionally adopt and submit to the Legislature for review the rule by January 10, 2014. P.L. 2012, ch. 653 § 30. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it

ensures the criteria for approval specified in the framework law will be achieved. No changes were made based on this comment.

233. *Comment*: Let us plan ahead for a strong economy in which all people have an opportunity to breathe clean air, drink clean water, and eat healthy food. The mining regulations currently proposed for Maine by the Maine Board of Environmental protection will not do this. These regulations will allow some of our most wealthy investors to pollute groundwater and surface water in places where they think they can successfully mine minerals for a good profit, for a while. This is because the recent changes do not properly regulate the search for viable sources of ore. Much damage to groundwater and surface water can result from this process before the actual mining starts. This investigation process will probably leave environmental problems for the taxpayers to clean up, as it happened years ago at the Callahan mine on the coast of Maine. The proposed regulations will not effectively prevent this from happening. They do not properly guarantee that the cost of environmental damage will be borne by the mine owners. The proposed regulations may allow creation of a few mining jobs for a short time, but there is no reason to believe that this benefit will offset the long-term damage that will result. Damage may be done while the jobs created are only searching for ore. If none is found, this will not have much of a long-term benefit to the economy. The result may fewer jobs because some of our recreational economy may be harmed. Maine needs to find better ways to develop a strong economy and jobs for everybody for a long time, not just until a mine runs out of good ore. Let us remember that the most basic human instinct is for survival, as it is for other forms of life. For survival we need to be able to breathe clean air, drink clean water, eat healthy food, and live in a climate that is not too cold or too hot. All humans need this. We need this not only for today, next week, next month, and next year, but forever. Our children and our grandchildren need this. If the world is fair, all people everywhere and forever should be able to have this. Help us contribute to making the world a fair and healthy place for all. Please look out for the people of Maine. Rolling the dice, hoping for possible mining jobs is the wrong course of action unless all necessary precautions are in place to prevent adverse damage to our economy and our people. (141)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. The rule does not allow contamination of surface water or contamination of ground water beyond each mining area. This is consistent with the framework law at 38 M.R.S.A. § 490-OO(4)(D). The framework law does not provide that the rules must or should be developed in consideration of the number or types of jobs associated with a permitted mine. No changes were made based on this comment.

234. *Comment*: I am a current Maine resident who loves the Maine wilderness and I do not want the changed mining rules to be approved. I chose to come to Maine because of its beautiful mountains, its winding rivers, and its serene lakes. These proposed changes could cause irreversible damage to some of Maine's most valuable wilderness, rendering it unusable for generations. Mining leads to deforestation, polluted watersheds, and habitat degradation. Large mining corporations are bound to take advantage of weak mining regulations, and Maine's residents will have to live with the consequences. I do not want the mountains and rivers that I love to be threatened by the environmentally harmful mining practices that these regulations would allow. Mining will cause environmental damage. There are so many risks and possible consequences that strong regulation is necessary to ensure that these mines will be properly cleaned up. With Maine's best interests in mind, I urge you not to approve the proposed changes to the mining rules. These changes only serve to weaken regulations that are already environmentally relaxed. I do not want Maine's wilderness to be threatened by irresponsible mining. The Board of Environmental Protection should not approve these changes. They will not only threaten Maine's wilderness today, these rules will cause harm to both human health and the environment that will last for generations. (142)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. The rule does not allow contamination of surface water or contamination of ground water beyond each mining area. This is consistent with the framework law at 38 M.R.S.A. § 490-OO(4)(D). No changes were made based on this comment.

235. *Comment*: Environmental protection and a healthy economy are not mutually exclusive. To achieve a proper mix, each side must be a strong advocate for its purpose for the system to work. I feel that the DEP is not advocating for the Maine environment. Changing the rules to fit the needs of a few (or the one) does not keep Maine's environment as top priority. (143)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. The framework law does not provide that the rules must or should be developed in consideration of the number or types of jobs associated with a permitted mine. No changes were made based on this comment.

236. *Comment*: The location of Irving's proposed mining sites threatens some of Maine's most important trout and salmon rivers - a source of much economic benefit from fishing, hunting and other tourism activities. All of Maine's woods and waters are important to my enjoyment of fishing, hunting, boating, camping and other outdoor pursuits; they also involve my family and friends - including grandchildren - that want Maine to remain the inviting place to live and visit that we treasure. Quite honestly, I'm opposed to the mine and most mining as too risky a proposal regarding possible great environmental damage. Better ways to pursue more reasonable economic development opportunities surely can be found. (145)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. No changes were made based on this comment.

237. Comments: Mining is known to produce many toxic chemicals including arsenic, a carcinogen, and lead, a neurotoxin. In a wet environment like Maine it is much easier for these toxins to be released and contaminate local watersheds, which are a vital part of all ecosystems. Currently J.D. Irving Ltd. has expressed interest in open-pit mining Bald Mountain in Aroostook County. Mining on Bald Mountain could contaminate the Fish River watershed, which is home to a thriving population of native Brook Trout. These Brook Trout are a vital part of the economy in Northern Maine as they are important for tourism as well as the health of the ecosystem. In the past, mining has proven to be detrimental to the environment in Maine. The Callahan Mine in Brooksville operated from 1968-1972. Forty years later the mine is now considered a Superfund site and an estimated $23 million cleanup is ongoing. This situation could occur again at sites like Bald Mountain if mining restrictions are relaxed like the BEP is proposing. Considering Maine citizens reliance on healthy wilderness it doesn’t make sense to sacrifice long-term human and environmental health for the possibility of a short-term economic boost. Mining is touted as a job creator but it is unclear whether mining will create many jobs at home in Maine. Many mining companies bring workers from out of state to work the higher paying jobs and a smaller number of low paying jobs are available to in-state workers. This has been the case in other J.D. Irving Ltd. operations. There is no way to mine in a clean, safe way. Relaxing restrictions for mining companies would drastically impact human and environmental health for years to come. (149)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. The

framework law does not provide that the rules must or should be developed in consideration of the number or types of jobs associated with a permitted mine. It is noted that Maine did not have specific mining rules or regulations in effect when the Callahan mine was opened and operated. Thus, a comparison of effects from that mining operation to future mining operations in Maine that are conducted in compliance with this Chapter and the Act cannot reasonably be developed. No changes were made based on this comment.

238. *Comment*: Rather than improving the rule, we believe that many of the proposed changes weaken it substantially, resulting in a law that is neither clear nor protective. If adopted, these changes will increase the risk that taxpayers rather than mining companies will end up paying to clean up contamination sites. (150)

Response: This comment does not identify any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. No changes were made based on this comment.

239. *Comment*: After our review of the earlier draft of the rules, Trout Unlimited believed that without substantial improvements, the Chapter 200 rules would not allow for development of mines in a way that would protect Maine's natural resources and taxpayers. We—and the vast majority of other members of the public who provided comment—urged the Board to make substantial improvements to strengthen protection for the environment, public resources, and taxpayers, particularly with respect to preventing perpetual or long-term water treatment, protecting important public resources, and ensuring adequate mechanisms for the state to cover its costs in the event of a bankrupt or abandoned mine. (150)

Response: This comment does not identify any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. No changes were made based on this comment.

240. *Comment*: Maine Audubon is very concerned about potential negative impacts to water quality and fish and wildlife resources from mining and whether Maine taxpayers will have to fund any clean-up of contaminated sites resulting from mining. We are very disappointed that, rather than strengthen the proposed rule, the Board has gone in the opposite direction and is significantly weakening the rule. (151)

Response: This comment does not identify any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. No changes were made based on this comment.

241. *Comment*: As a resident of Maine for over 5 decades, I've always been proud of our state's preservation of our natural resources and the hard work so many Maine residents have put into protecting them. I've experienced the rejuvenation of, to name just two, the Androscoggin River and the Back Cove area of Portland. But, because we continue to have kept or improved our many natural resources, there are many entities who, through pure greed, would like to help themselves and don't seem to care about the consequences. I've read through the proposed changes to the mining rules and believe these changes will mean the real potential of damage to these resources. Run-offs would affect not only water, but the trees (and farm crops) dependent on same - and ultimately have a really negative effect on us humans. Please continue strengthening, not weakening, our mining rules. (152)

Response: This comment does not identify any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. The rule does not allow contamination of surface water or contamination of ground water beyond each mining area. This is consistent with the framework law at 38 M.R.S.A. § 490-OO(4)(D). No changes were made based on this comment.

242. *Comment*: The commenter notes the rules continue to be based on the assumption that Maine should say "yes" to mining — while attempting the impossible, that is, to make industrial mining of metal sulfide bearing ores in Maine's wet environment clean and safe. The rules are not written to give DEP or BEP a good opportunity to say that the short-term benefits of mining are not worth the long-term costs to Maine's fragile and valuable natural environment. This bias in the rules is fatal and insurmountable. Therefore, we believe that the draft DEP mining rules do not adequately protect the public interest and should be rejected. (154)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The framework law at 38 M.R.S.A. § 490-NN(1)(B) *requires* the Board to adopt rules to carry out its duties under the Act. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for

environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. No changes were made based on this comment.

243. *Comment*: Overall, AMC is worried about the statewide implications of the weak regulatory framework outlined in these draft rules. We are disappointed that the changes made to the rules continue to undermine environmental protections and put Maine's natural resources at risk from mining development. (155)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. No changes were made based on this comment.

244. *Comment*: I am writing again to state the obvious - that unless you strengthen, rather than weaken the mining rules before your committee, as you have done in this last round of recommendations, each and every one of you will be personally responsible for the probable devastating effects of the open pit mining of Bald Mountain and other future open pit mining sites in the State. JD Irving cannot be blamed for doing their job to maximize corporate profits at any and all expense to environment - that is their purpose. But you, the Board of the Environmental Protection, are the ones who are supposed to protect our environment and our health, and you will be the ones who will have to bear the regret and the shame for the damage that will most probably result if you forward the recommendations to our legislators who depend on you to give them the information needed to vote these laws into effect. I hope that you will reconsider your ill thought out recommendations and do something to protect us rather than harm us and future generations. (156)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. No changes were made based on this comment.

245. Comment: Please keep Maine's mining regulations intact. Mining Bald Mountain would cause too much environmental damage. (158)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the

criteria for approval specified in the framework law will be achieved. The Department is not acting on a request to mine any specific area in Maine. No changes were made based on this comment.

246. Comment: As written, these regulations will most definitely result in the permitting of exploration mining and closure plans that will not be able to effectively control contamination and will risk widespread permanent devastating loss of watershed system and of all the habitat and life those watershed systems support and make possible. TWO MAIN FORCES WERE AT WORK IN CREATING SUCH AN IRRESPONSIBLE POORLY INFORMED MINING RULE: DEP/BEP's LACK OF EXPERISE IN MINING AND INAPPROPRIATE CORPORATE INFLUENCE ON THE RULE MAKING PROCESS By JD IRVING ET. AL DEP/BEP simply do not have ,and did not make a good faith effort to acquire, the expertise in mining to achieve the task of writing a mining specific rule reflecting the same levels of natural resource protection as all the elements of environmental law from which the mining statute removed mining. That is apparent in almost every line of this Chapter 200 rule and even more so in these deeply flawed amendments. It was apparent in Jeff Crawford's uninformed written "briefings" for the BEP work sessions and in the presentations of all DEP staff to the Board. It was apparent in the questions the BEP asked of DEP. It was apparent in every answer the DEP gave to BEP. First Bowker Associates and then NRCM questioned the credentials of the DEP's sole bidder, North Jackson selected to help write the rules. Bowker Associates had also questioned the adequacy of the procurement process itself. DEP's flawed outreach process resulting in only one bidder, a junior level small obscure geological consultant no one has ever heard of even in Michigan . DEP, as has occurred many times in its handling of the mining and exploration rules, violated the Administrative Procedure Act by not announcing the selection of North Jackson until the time for comment and challenge had actually expired. Although the selection had been made, they refused to reveal the name to Bowker Associates or to NRCM until the actual day public comment expired nullifying any opportunity to review and comment on the applicant qualifications. It is fair to say that DEP/BEP have not acted in good faith in trying to acquire well informed expert guidance. DEP/BEP do not possess, nor did North Jackson possess the expertise to do what the mining statute required: to establish a mining specific rule with the same level of natural resource protection as previously existed under site of development law and the other affected sections of environmental law. The science, the means and methods of accomplishing this in the regulation were laid out in detail in prior testimony on the interim technical rule making for Explorations and Advanced Explorations. The most highly regarded work on preventing environmental degradation from sulfide mining was laid out at length in testimony. The complete absence of expression of any of this in this final rule is not only inexcusable, it is "bad faith" with respect to the DEP's primary duty of protecting Maine's natural resources from degradation. There is no excuse for failing to utilize this best knowledge in drafting the mining rule. The Gard Guide, also ignored in the DEP's homespun writing of the ineffectual and confused 1991 rules, has been available all along and cited often in testimony and correspondence. Gard Guide is a continuously updated "best practices" framework informed by the latest

and best of relevant science & study. DEP's writing of this rule and the BEP's reliance on DEP seems to be a determined avoidance not only of the Gard Guide but all meaningful science, research and study focused on preventing contamination at sulfide mines. This is inexcusable and inexplicable if the DEP and BEP understood their mandate to be writing rules that would not result in issuing permits for mine and exploration activities that are unable to demonstrate effective control of contaminants. Maine's Mining Statute does not preclude attainment of Adequate Contamination Control. For all its ambiguities, poor language, poor construction and internal inconsistencies, no reasonable reading of the statute could conclude that the statute precluded not granting permits for any mine & closure or exploration activity that cannot demonstrate prospectively that those activities can be expected to effectively control contamination. Nowhere in any part of Maine's statute is there a single word or phrase that contravenes a clearly stated policy of not allowing any activity that cannot prospectively demonstrate adequate control of all contaminants. DEP/ BEP's mission was to develop a rule specifically geared to the risks and process of mining at a minimum achieving the same level of natural resource protection as exists for all other activities still regulated via the provisions of law from which mining was removed. The duty in writing regulations for a statute is to make a clear interpretation of the main principles expressed in statute and then build a framework that flows from and follows those principles. That was not achieved here. A good faith effort to achieve that was not made. The failure very clearly is in DEP/BEP's complete lack of expertise in sulfide mining and its failed procurement process in securing that expertise to guide the rule development process. That same complete misunderstanding of even the meaning of words, the phrasing of questions at the October 17th Public Hearing and at every work session on these rules also shows that the fatal flaw in these rules derives from the BEP's failure to demand expert guidance. THE STATEMENT OF BASIC EFFECTIVE DRIVING PRINCIPLES FOR THE RULE DID NOT REQUIRE ANYTHING MORE THAN COMMON SENSE AND A VERY BASIC UNDERSTNDING THAT IT IS POSSIBLE TO PRE ASSESS WHETHER A GIVEN ACTIVITY CAN ATTAIN EFFECTIVE CONTAMINANT CONTROL. The absolute best science, research and guidance was presented to DEP in the context of the interim technical rules for advanced exploration These materials made it unquestionably clear that the key to responsible mining was Is not issuing permits for activity that cannot prospectively show adequate control of contaminants. (159)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The framework law at 38 M.R.S.A. § 490-NN(1)(B) requires the Board to adopt rules to carry out its duties under the Act. This rulemaking process adhered to all statutory requirements of 38 M.R.S.A. § 341-H, 38 M.R.S.A. § 341-D, and 5 M.R.S.A. § 8051, *et seq*., including public participation and careful consideration of all comments. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and

that it ensures the criteria for approval specified in the framework law will be achieved. No changes were made based on this comment.

247. *Comment*: In establishing standards unique to mining as directed by 653 2011 the Department assumes that the intent of xyz sections (the roll backs) was not to exempt mining from these standards of natural resource protection but to establish a comparable standard of protection expressed with reference to the unique nature and risks of metallic mining. Therefore any prohibitions or limitations expressed under (the roll back provisions) are understood to also apply to mining and are expressed in the chapter 200 regulation in terms of the unique character and risks of metallic mining. There is nothing in C653 2011 that precludes or limits such an expression of policy. That expression is not made at all in the draft rule and these amendments do not achieve this expression. From such a clear and unambiguous main statement of policy, right at the beginning at Section 1 B. Further specific guidance and policy clarity on these general statements could and should be given by applying this general mandate to each main source of pollution and contamination: ARD and toxic metals leaching. For example: Therefore, the department will only accept applications under this rule where the applicant has demonstrated that the operation and closure plans have provided adequately for the prevention of critical loss or potential long term damage to natural resources through identification and planned control of any potential sources of contamination including but not limited to: (a) AMD/ARD generation and offsite migration. An acid-generating mine has the potential for long-term, devastating impacts on rivers, streams and aquatic life, becoming in effect a 'perpetual pollution machine. (159)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. No changes were made based on this comment.

248. *Comment*: Two years ago, 9 students and I went to West Virginia and saw for ourselves what Mountain Top Removal for mining and mining sulfur based ores actually looks like. If you had ever seen it you would ban mining forever in Maine. It is shocking beyond belief. The toxic water, running orange in the brooks is horrifying. People with their tap water all brown and sludgy, and you can light some of it on fire. This is what we have in store for Mainers if you allow open pit mining in Maine, and especially with the weak regulations being proposed. (160)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The framework law at 38 M.R.S.A. § 490-NN(1)(B) requires the Board to adopt rules to carry out its duties under the Act. Conditions resulting from past mining activities in other jurisdictions where regulatory programs may not have even existed at the time the mine was operational cannot be utilized to describe how a properly operated and permitted mine in Maine will perform. No changes were made based on this comment.

249. *Comment*: DEP's proposed additional changes to Chapter 200 Mining Rules serve only to show that the environmental costs over time to the State of Maine relating to these rule changes will far exceed the economic benefits to a few from this project. The legislature should reject all proposed changes to Chapter 200 and leave the current mining rules as is. (162)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The framework law at 38 M.R.S.A. § 490-NN(1)(B) requires the Board to adopt rules to carry out its duties under the Act. The framework law does not provide that the rules must or should consider economic benefits of mining. This Board has no authority in the legislative process of reviewing the provisionally adopted rule. No changes were made based on this comment.

250. *Comment*: Please strengthen the existing mining rules and regulations to benefit We The People of Maine and our wildlife, environment, and fight against imminent perils of Global Warming. (164)

Response: This comment does not identify any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. No changes were made based on this comment.

251. *Comment*: Whereas: Acid Rock Drainage (ARD) appears to be universally associated with the mining of massive sulfide deposits of the kind that occur in Maine. Whereas: I am unaware of any successful means of treating waste rock such that ARD is not generated by mining activities. Whereas: The generation of ARD, if allowed to contaminate surface waters, will certainly exceed water quality standards as stated in my earlier testimony. Whereas: The Callahan Mine in Brooksville mined a massive sulfide deposit and was abandoned, with the company declaring bankruptcy, requiring State taxpayers to foot the bill for cleanup in the amount of approximately $23million. Whereas: Maine DEP staff have no experience in the evaluation of this type of mining. Therefore: I am left having to trust that any mining of this kind of deposit in Maine will have a different outcome than our limited experience has shown locally and what I have heard of elsewhere. My expertise is not in economics or finance, so once again I am left having to trust that sufficient financial safeguards will be put in place to regulate mining companies that might operate under the rules as proposed. (165)

Response: This comment does not identify any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. No changes were made based on this comment.

252. *Comment*: I hold a Ph.D. in Civil and Environmental Engineering from Princeton University. I am a retired Professional Wetland Scientist (PWS) and the coauthor of a book chapter on arsenic geochemistry in The Geochemical Society Special Publication #7: Water-Rock Interactions, Ore Deposits, and Environmental

Geochemistry (2002, 462 pages). As an environmental consultant in NJ and PA, I used to design wetland systems to remediate contaminated water and sediments, especially involving heavy metal pollution, as well as acid mine drainage. I have seen firsthand the environmental damage caused when mining companies are allowed to mine using inappropriate techniques with inadequate regulatory oversight. (166)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. No changes were made based on this comment.

253. *Comment*: First, let me thank you and others in the Department of Environmental Protection for your attempts at strengthening a few of the mining rules – Chapter 200 – Metallic Mineral Exploration/Advanced Exploration and Mining open pit/mountaintop removal mining even when several members of the Board of Environmental Protection clearly sought to weaken most of the rules. Second, it is tragic, however, that the Department of Environmental Protection has not looked carefully and with the full measure of reality as to how devastating any form of open pit/mountaintop removal mining will be to Maine's environment. NO MINING – NOT new rules for mining - is the only way to protect the quality of our soils, groundwater, air, and the quality of life and health for Mainers and the wildlife that makes this State so magnificent. Third, the Chapter 200 Draft and Attachments should be scrapped. (167)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The framework law at 38 M.R.S.A. § 490-NN(1)(B) requires the Board to adopt rules to carry out its duties under the Act. No changes were made based on this comment.

254. *Comment*: Poor judgment, lack of insight, and the wrong political will by the current DEP or those appointees from another future administration, should not be given the mission to decide how close to previously described areas mining could or should occur. Many of these areas are on or very near coastlines and there are no provisions in the Draft plans as to restrictions, rules, and regulations for mining in the coastal areas. Even with the DEP's proposal for "Violation Plans" it is not enough to stop a determined mining company from breaking the rules – it happens all the time when their profit margins are high enough. How will the DEP stop the mining? Bring in the National Guard? Use the judicial process that could take years and years and millions of taxpayers money? We know once the ore is removed from the ore bearing rocks it reacts to air and water to form – the highly toxic and corrosive – sulfuric acid. Is this the kind of material we want damaging the waters surrounding our National, state parks, and wildlife refuges? Remember Maine's fishing industry is on a rapid decline and many species are overfished. Do we want to further damage this industry with toxins from mining? What about the farm fishing? This industry is already having problems from waste and other bacteria. Do we want to cause more problems from mining effluence? We know the Callahan mine in Brooksville – near the

Holbrook Sanctuary – a superfund site – cost 23 million dollars of taxpayers money to clean it up. Yet, even with all that expense this catastrophe still continues to contaminate the soil and sediment. It is a dead zone and whatever forms of life – microscopic plants, animals and others have been killed off or remain toxic. (167)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The framework law at 38 M.R.S.A. § 490-NN(1)(B) requires the Board to adopt rules to carry out its duties under the Act. No changes were made based on this comment.

255. *Comment*: Finally, please remember, Mr. Crawford, that once mining begins, roads are built, the forest is clear-cut, the blasting begins, the toxins are released – there is no turning back. There is no reversal process. We must not allow our lands to be exploited, decimated, left barren and dead. States like West Virginia are wastelands. Huge land masses have been destroyed in Canada's Boreal Forest for tar sands mining. We must not allow JD Irving – fossil fuel magnate – owner of one of the most polluting corporations on earth - to take Maine's wilderness and other areas for his purposes. We must not allow JD Irving and the others from the mining industry to make tons of money from the mining materials. These people will not give anything back to the State or the community they damage and destroy. We will be left with the mess and global climate change will be heightened and intensified. (167)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. It is noted that the rule contains requirements for site reclamation. No changes were made based on this comment.

256. *Comments*: I am a taxpayer and that makes me part owner of Maine land! I am responding from the letter of John Woodside which appeared in MORNING SENTINEL dated December 22, 2013. If I had the power I would fire those people who proposed the mining changes mentioned in Mr. Woodside's letter. I would assume that the changes proposed were voted as acceptable by our lawmakers and influenced by lobbyists hired by the mining interests. The land proposed for mining i.e. Bald Mountain is partly owned by me. I am not against developing land in Maine generally as long AS IT IS DONE RESPONSIBLY always protecting the natural resources for the next generation of folks who will inherit what we leave to them. Corporations by definition are developers but their track record historically exceedingly poor. I demand that the Bureau of Environmental Protection meet its responsibility and ensure that Maine land be protected in this case. (169)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the

criteria for approval specified in the framework law will be achieved. No changes were made based on this comment.

257. *Comment*: I am distressed to learn of the proposed mining of Bald Mountain and am very opposed to any regulatory changes which impact the environment and resources of the area. Previous studies and experts have consistently indicated that Maine's unique geology makes the risk of significant arsenic release a given with this mountain mining and Irving has NO mining experience. We need to save and protect our resources for the future generations of Mainers! (170)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. This rulemaking process established a rule to be implemented by the Department for any application for mining from any applicant. No changes were made based on this comment.

258. *Comment*: Maine is a beautiful state. Its environment holds a singular spot of honor among states east of the Mississippi River. Why, in God's name, would the DEP ignore and cover-up problems associated with open-pit mining? Why would this body, and this administration, so callously and perilously endanger the water supply and the health of its citizens. Corporate profit, corporate largesse, are not the reason government exists. It exists to serve the needs of the people. Please consider the wellbeing of Mainers - that wellbeing goes far beyond a few jobs. (171)

Response: This comment does not identify any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The framework law at 38 M.R.S.A. § 490-NN(1)(B) *requires* the Board to adopt rules to carry out its duties under the Act. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. No changes were made based on this comment.

259. *Comment*: This is wholly unacceptable. Mr. Crawford, I have a 10 year old daughter, no amount of justification will make this morally right. Who is looking out for the unrepresented future generations here, Mr. Crawford? It's time to stop making decisions which only serve to benefit one generation or a small group of people and completely disregard the obvious majority. There is no way to properly restore what mining does to the environment. I object to weaker protections for mining in Maine. I can say with much confidence that future generations agree with me. (174)

Response: This comment does not identify any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. No changes were made based on this comment.

260. *Comment*: I believe that, should these new mining rules be approved by the legislature, they would permit great damage to Maine's environment from mining operations. An open---pit mine proposed by J.D. Irving, Ltd., would be but the first of many potentially environmentally disastrous new mines in Maine. The site for J.D. Irving, Ltd.'s proposed project is Bald Mountain in Aroostook County. Bald Mountain is over a large deposit of sulfide ore, which, in addition to gold, silver, and copper, contains high levels of arsenic and sulfur. As these precious metals are extracted through open---pit mining, the toxins that are found with them would also be released into the water table, a process known as acid mine drainage. Of course, this draft of mining rules states that the mining company is responsible for cleaning the water table, but there is no method proven to reduce toxic chemicals to safe levels once mining activities spread them into the water table. In fact, there is no safe level of exposure to these chemicals for the people that live within the contaminated watershed. I also believe that if these changes pass the legislature, the mining operations that would dot the state like the Callahan mine, now a federal Superfund site with a $23 million price tag and the center of a statistically improvable yet all---too---real cancer cluster – would likely drive down state---wide tourism. Additionally, many people choose to live in Maine because of its environment. Without Maine having a healthy environment, tourism would drop and many people who could would choose to live elsewhere. If these changes are adopted, the short---term revenue generated by mines could essentially displace the long---term revenue the tourism industry, the fishing industry, and residents bring in. To be modern, we need rules that place long---term ecological and economic stability over short---term growth, instead of rules that make the state and its residents easily exploitable by mining companies. I request that the Board of Environmental Protection draft a new version of mining rules that ensures Maine remains livable by keeping ecological and economic integrity and stability in mind. (178)

Response: This comment does not identify any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The purpose of the rule is to ensure environmental standards will be achieved, that the activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. No changes were made based on this comment.

261. *Comment*: With the proposed easing of regulations for mining, the BEP aims to destroy regulations for air and water quality and for the health of living systems in the state of Maine. Then the BEP proposal seeks to hold the taxpayers responsible for any cleanup and health problems that arise from decreased regulations on the mining industry. Please hold the mining industry accountable by strengthening the regulations not limiting them. (182)

Response: This comment does not identify any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The purpose of the rule is to ensure environmental standards will be achieved, that the

activity does not pose a threat to human health, that there is adequate financial assurance for environmental impacts, and that it ensures the criteria for approval specified in the framework law will be achieved. No changes were made based on this comment.

262. *Comment*: Any weakening of environmental rules and liability for damages and recovery would be a betrayal of Maine citizens. Our most precious natural resource is our water supply and that must be protected. Any industry coming in needs to demonstrate reliable protections and assume full and timely responsibility for any harm caused by their actions. As the mining industry has a poor track record in this respect, the proposed changes would be a disservice to the people of Maine. (183)

Response: This comment does not identify any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. No changes were made based on this comment.

263. *Comment*: The proposed rules, if adopted, will create a future disaster. I don't think open pit mining of sulfide ores should occur in a wet climate like Maine's. Underground mines pose some of the same risk, but the waste amounts generated would be far less. If there has to be mining of sulfide ores, let it be underground. (184)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. The framework law at 38 M.R.S.A. § 490-NN(1)(B) *requires* the Board to adopt rules to carry out its duties under the Act. The framework law defines mining to include removal of overburden; thus, a prohibition in the rule on open pit or surface mining is not supported by the statute. No changes were made based on this comment.

264. *Comment*: The irony is that making it easier for corporations to increase profits by using more and more devastating extractive practices is ultimately not in anyone's best interests. We only have one planet and we need it far more than it needs us. So it seems to me that either we the people learn to restrain private business forces obsessed with economic growth or we will have restraints forced on us by natural forces. (185)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. No changes were made based on this comment.

265. *Comment*: We read the regulations. These are the same people who have blown tops off of mountains and polluted streams and rivers. I do not trust them or the current government to police them to guarantee they adhere to the contract. The changes lead to lax regulations which place the responsibility for environmental protection on mining companies notorious for their disregard of rules they find

constraining. Once we lose the pristine water and environment we have, what do we do then? (186)

Response: This comment does not pertain to any specific provisions to the Chapter 200 changes posted for public comment by the Board on December 3, 2013. No changes were made based on this comment.